

# How to use your catalog

This catalog is organized for your convenience in specifying and ordering Hollingsworth Solderless Terminals. The table of Contents lists major sections and highlights the content of each. Each section is preceded by an explanation of the abbreviations and types of terminals contained within that section. (For your guidance a review of terminal types and construction advantages are presented on pages 2 and 3.) Sections are organized by wire size, tongue type and barrel style.

Standard insulation materials, color coding, terminal material and thickness, CMA ranges, inside barrel diameters, insulation diameters and the recommended Hollingsworth Hand Tool or die for the Hollingsworth H270 and H470/H470-1 automatic crimping machines are indicated in the tables. All dimensional data is shown in both decimal inches and millimetres. Where applicable, optional insulation materials are indicated and can be ordered by adding the appropriate suffix to the catalog number.

Other part number suffixes are as follows:

**B** Brazed barrel

**F** Flared insulation (allows heavier wire insulation to be used)

**G** Part is made with a longer tongue (provides greater clearance between stud hole and barrel)

**S** Short barrel (.17"/4.32mm). These parts may be ordered where a space limitation exists.

Most terminals and splices are available tape mounted for fast automatic crimping, as indicated by the note on the applicable pages. You need only add a "T" suffix to the catalog number to order on tape.

More reliable crimping is assured when you use the proper tool-one designed to match the size and barrel style you are crimping. A complete review of all Hollingsworth tools-hand and automatic-is shown on pages 56-63.

For your convenience, Hollingsworth Easy-Ty Wire and Cable Wraps are also shown in the catalog.

The last section of this catalog has a numerical listing of all cataloged parts by page number.

If you have any questions regarding Hollingsworth products, the back cover of this catalog will provide you with the telephone number of your closest Hollingsworth location.

**NOTE:** Part Numbers with a shaded background indicate the item is a "Preferred Part" and is readily available.

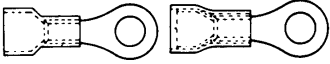

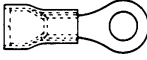
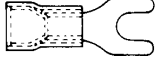
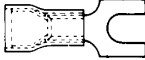

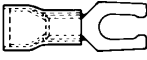





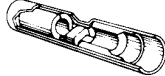



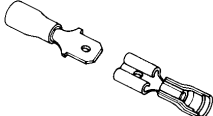

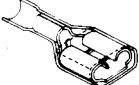
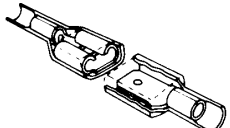
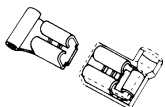
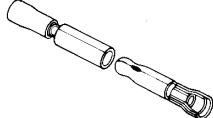
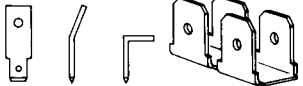
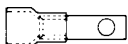
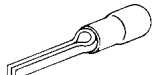
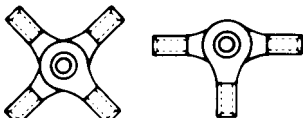
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**NOTE:** All items listed in the catalog that are available on tape can be crimped in either the Hollingsworth H270 or in the new advanced H470 or H470-1 Automatic Crimping Machine.

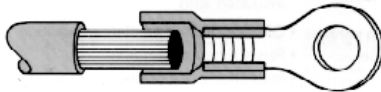
# Terminal Selection Guide

<p><b>RING TERMINAL</b></p> <p>Most secure type of tongue style. Attaching screw or stud must be inserted through hole in the tongue: terminal cannot fall off if nut loosens Available in wire sizes 26 AWG through 250MCM. Insulated and non-insulated.</p> 	<p><b>HIGH TEMPERATURE RING</b></p> <p>For high temperature applications: maximum operating temperature for these terminals is either 650°F or 900° F. Non-insulated only. Available in wire sizes 22 AWG through 2AWG.</p> 		
<p><b>HEAVY DUTY RING</b></p>  <p>Made of heavier than normal gauge material for heavy duty applications (commonly used by railroads). Available in 20 AWG through 14 AWG wire sizes. Insulated and non-insulated.</p>	<p><b>SPADE TERMINAL</b></p>  <p>Faster to install than ring terminals: no need to remove nut from screw or stud post, Insulated and non-insulated. Available in 22 AWG through 10 AWG wire sizes.</p>	<p><b>BLOCK SPADE</b></p>  <p>For use in terminal blocks or barrier strips. Tongue slides are flat so they lay flush against barrier portion of terminal block providing a secure "lock-in" connection. Available in 22 AWG through 10 AWG wire sizes. Insulated and non-insulated.</p>	<p><b>FLANGED SPADE</b></p>  <p>Same fast installation as spade terminal, but ends of tongue are turned up providing "locking" mechanism to help maintain connection should screw loosen. Insulated and non-insulated. Available in 22 AWG through 10 AWG wire sizes.</p>
<p><b>SPRING SPADE</b></p>  <p>Provides connection security of ring with insertion ease of spade. Small projection inside tongue forks provide snap-on mechanism "locking" terminal in place like ring terminal. Extra force required to remove-will not fall off stud or screw. Available in 22 AWG through 10 AWG wire sizes. Insulated and non-insulated.</p>	<p><b>MINI SPRING SPADE</b></p>  <p>Combines advantages of ring and spade terminals, but smaller in size than regular spring spade for tight spaces and some makes of terminal blocks. Insulated and non-insulated. Available in 22 AWG through 10 AWG wire sizes.</p>	<p><b>HOOK TERMINAL</b></p>  <p>Another style of terminal designed to lessen installation time. If properly installed, it is more secure than spade or block spade, but can come off if stud becomes loose. Available in 12-10 AWG wire sizes only. Insulated and non-insulated.</p>	<p><b>PARALLEL</b></p>  <p>Designed for splicing or connecting wires together rather than termination, inserted wires overlap.. only one central crimp is required. Especially useful when solid and stranded wires must be joined. Insulated and non-insulated. Available in 26 AWG through 3/0 AWG wire sizes.</p>
<p><b>BUTT CONNECTOR</b></p>  <p>For splicing or connecting wires together. Wires are inserted from either end and butt against built-in wire stop. Butt connector is crimped in two places; one crimp for each wire. Available in 22 AWG through I/O AWG wire sizes. Insulated and non-insulated.</p>	<p><b>HIGH TEMPERATURE BUTT CONNECTOR</b></p>  <p>Offered only in the 22-10 wire size for high temperature applications, butt connectors are available with maximum operating temperature ratings of either 650° F or 900° F. Non-Insulated only.</p>	<p><b>WINDOW BUTT CONNECTOR</b></p>  <p>Same application as regular butt connector, but portion above built-in wire stop is cut away providing inspection window. See-through Nylon is used for insulated window butt connectors. Insulated and non-insulated. Available in 26 through 10 AWG wire sizes.</p>	<p><b>SEAMLESS BUTT CONNECTOR</b></p>  <p>Same application as a regular butt connector and is made from tubular stock. Available in 22 AWG through 10 AWG wire sizes. Insulated and non-insulated.</p>
<p><b>STEP-DOWN BUTT CONNECTOR</b></p>  <p>Used for joining unlike wire sizes together. Each end of the butt connector accepts a different wire range, but one tool crimps both ends. Available in four wire range combinations from 22 AWG through 10 AWG wire sizes. Insulated and non-insulated.</p>	<p><b>PIGTAIL CONNECTOR</b></p>  <p>Can be used as splice, wire butt, parallel or dead-end cap. Each size has given set of wire combinations it will accept. Single crimp provides reliable connection. Pigtail cannot "back off" the wires as screw-on type connector can. Insulated only. Available in 22 AWG through 8 AWG wire sizes.</p>	<p><b>MALE AND FEMALE SLIP-ON TERMINALS</b></p>  <p>Not attached by use of a stud, instead tongue of female part slips on mating male part or tab. Provides quick and easy disconnection of wires. Slip-On terminals have excellent holding force due to detents and rolled edges on tongue of female. Available in 22 AWG through 10 AWG sizes. Insulated and non-insulated.</p>	
<p><b>HIGH TEMPERATURE MALE AND FEMALE SLIP-ON TERMINALS</b></p>  <p>For high temperature applications: maximum operating temperature for these terminals is either 650°F or 900°F. Non-insulated only. Available in 18/14 AWG and 16/14 AWG wire sizes.</p>	<p><b>(FISO) FULLY INSULATED SLIP-ON</b></p>  <p>For high temperature applications: maximum operating temperature for these terminals is either 650°F or 900°F. Non-insulated only. Available in 18/14 AWG and 16/14 AWG wire sizes.</p>	<p><b>MALE AND FEMALE NYLON COUPLERS</b></p>  <p>Female housing fits entirely inside male to form fully insulated in-line splice. Molded nylon parts let you break and re-connect circuit without disturbing insulation. Eliminates shorting and Rashover. Available in 22-18, 16-14 and 12-10 AWG wire sizes. Insulated only.</p>	
<p><b>FLAG SLIP-ON TERMINALS</b></p>  <p>Right angle parts provide advantage of slip-on terminal while giving design and packaging flexibility where space is a limitation. Available in 22 AWG through 10 AWG wire sizes. Insulated and non-Insulated.</p>	<p><b>PLUGS AND RECEPTACLES</b></p>  <p>Advantages similar to slip-on terminal. Provides reliable in-line connection. Parts are made to close tolerances to produce holding friction when parts are mated. Insulated and non-insulated. Available in 22AWG through 14AWG wire sizes.</p>		
<p><b>KNIFE DISCONNECT</b></p> <p>Always used in pairs, tongue is shaped so two like parts are locked together. Used as connectors or splices; has advantage of quick disconnect. Plus, the harder the pull, the tighter the connection. Available in 22 AWG through 10 AWG wire sizes. Insulated and non-insulated.</p>	<p><b>MALE TAB</b></p>  <p>Used in same manner as male slip-on; differs from straight tab since it does not have a barrel. Has mounting hole for rivet or screw. Available in straight, bent or right angle form. Available up to 12 pairs per part. Non-insulated only. .032" x .250" size.</p>		
<p><b>STRAIGHT TAB</b></p>  <p>Straight tab has a mounting hole for rivet or screw. Insulated and non-insulated. Available in 16/14 AWG wire size only.</p>	<p><b>WIRE PINS</b></p>  <p>Designed for installation in compression blocks Commonly used in Europe and for terminating stranded wire. Available in 22 AWG through 10 AWG wire sizes. Insulated and non-insulated</p>	<p><b>3 AND 4 WAY CONNECTORS</b></p>  <p>Three or four ring terminals tightly riveted together through the stud hole. Remaining stud hole diameter .160"/4.06mm. Provides multiple wire connection. Insulated and non-insulated. Available in 22 AWG through 10 AWG wire sizes.</p>	

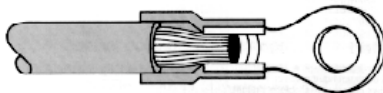
# Quality Funnel Entry Terminal Construction



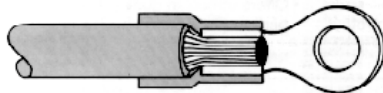
**FUNNEL ENTRY SPEEDS UP PRODUCTION  
INCREASES RELIABILITY**



**1.** "Funnel Entry" design guides wire into position. (Funnel FIT terminal illustrated.)



**2.** No wire strand tumbback or hang-up as wire is inserted.



**3.** Wire in place, ready for crimping. Fast, positive installation.

- 1.** Constructed of pure Electrolytic Tough Pitch (ETP) Copper for highest conductivity; annealed to insure maximum installed strength.
- 2.** Constructed in one, burr-free piece for maximum strength.
- 3.** Electro-Tin plated for maximum corrosion resistance.
- 4.** Wire range clearly stamped on each terminal for positive identification.
- 5.** Constructed with open end to allow visual inspection of wire location before and after crimp.
- 6.** Serrated with multiple "V" grooves for maximum holding power and current flow.
- 7.** Approved color coded insulation for easy wire size identification.
- 8.** "Funnel Entry" design actually groups wire strands together for fast, easy, positive entry into terminal barrel. This eliminates wire strand hang-up and positions wire perfectly for a more positive crimp.
- 9.** Electrical crimp area.
- 10.** Insulation gripping sleeve.
- 11.** Mechanical/Insulation crimp area relieves stress from electrical crimp and provides wire insulation support.
- 12.** Illustrated 3-piece "Funnel FIG" is the highest quality terminal in the marketplace today.

# SECTION 1

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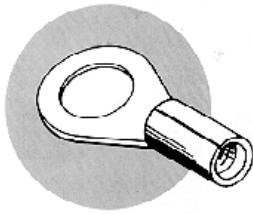
## Terminals for Wire Sizes 26 to 10 AWG

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Most terminals in this section are made from pure copper\* for highest conductivity. They are electro-tin plated to assure corrosion resistance. Serrated "V" grooves inside the barrel of each terminal firmly grip the wire to assure

maximum holding power, and wire sizes are stamped on each terminal for quick identification.

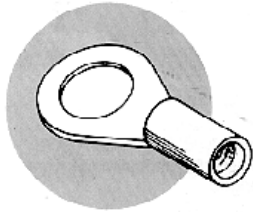
*\*Spring Spades and Mini Spring Spades are made from a copper alloy.*



### **NIT Non-Insulated Terminal**

Consists of a bare terminal with a butted seam barrel.

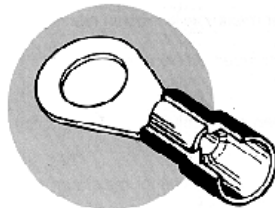
- Chamfered barrel end for fast, easy wire insertion.
- Highly economical



### **NIT BRAZED Non-Insulated Terminal-Brazed Barrel**

Consists of a bare terminal with a smooth, silver alloy brazed barrel.

- Chamfered barrel end for fast, easy wire insertion
- Brazed barrel can be crimped anywhere (even on seam) without splitting



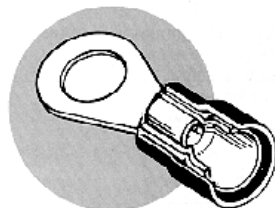
### **FUNNEL FIT Fixed Insulated Terminal-Funnel Entry**

An assembly of a bare terminal with a tightly fitted funneled insulating sleeve made of PVC.

- Funneled insulation facilitates wire entry,

speeds production and will accept heavily insulated wire.

- Offers excellent insulating qualities
- Resists minor vibrations
- Insulation color coded to standard commercial specifications



### **FUNNEL FIIG Fixed Insulated Insulation Grip-Funnel Entry**

An assembly of a bare terminal, fitted with a funneled copper insulation gripping sleeve and a tightly fitting insulation sleeve made from nylon

- Copper sleeve firmly grips wire to protect

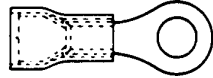
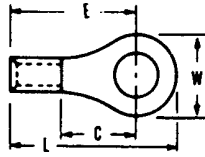
against high vibration failures

- Insulation color coded to standard commercial specifications
- Funnel Entry barrel facilitates wire entry, speeds production and will accept heavily insulated wire.
- Offers utmost in quality, reliability and performance

# 26/24 Rings

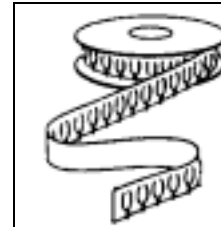
CMA Range 202-320

Barrel Inside Diameter .027"/.686 mm



**MATERIAL:** COPPER  
**Thickness:** .023"/.584 mm

BASIC DIMENSIONS					INSULATED (YELLOW NYLON)				
					INSUL. DIA. .092"/.233 mm				
Stud Size	W In.	W mm	C In.	C mm	Funnel FIIG	E In.	E mm	L In.	L mm
2	.14	3.56	.17	4.32	XR26336N	.62	15.75	.69	17.53
4	.20	5.08	.22	5.59	R26337N	.65	16.51	.76	19.30
6	.25	6.35	.29	7.37	XR26338N	.73	18.54	.86	21.84
8	.32	8.13	.29	7.37	XR26339N	.74	18.79	.89	22.61
10	.32	8.13	.29	7.37	XR26340N	.74	18.79	.89	22.61
Hand Tool					H7B				

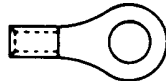
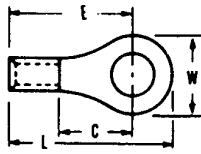


All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example R26201-T or XR26241N-T

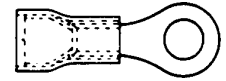
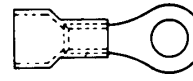
# 22/16\* Rings

CMA Range 509-3260

Barrel Inside Diameter .059"/1.5 mm



**MATERIAL:** COPPER  
**Thickness:** .030"/.762mm



BASIC DIMENSIONS					NON INSULATED					INSULATED (RED NYLON)					INSULATED (RED NYLON)					
										INSUL. DIA. .160"/4.06mm					INSUL. DIA. .146"/3.71mm					
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm
2	.22	5.59	.16	4.06	R4103	R4103B	.44	11.17	.55	13.97	R4140F	.70	17.78	.81	20.57					
2	.22	5.59	.16	4.06	R4103S	R4103SB	.34	8.63	.45	11.43	R4140SF	.63	16.00	.74	18.80	XR1879SN	.63	16.00	.74	18.80
4	.22	5.59	.16	4.06		R4104B	.44	11.17	.55	13.97										
4	.22	5.59	.16	4.06	R4104S	R4104SB	.34	8.63	.45	11.43	R4141SF	.63	16.00	.74	18.80	XR1880SN	.63	16.00	.74	18.80
4	.28	7.11	.32	8.13	R4261S	R4261SB	.50	12.70	.62	16.25	R4265SF	.79	20.07	.93	23.62	XR1856SN	.79	20.07	.93	23.62
6	.22	5.59	.16	4.06	R4105	R4105B	.44	11.17	.55	13.97	R4142F	.70	17.78	.81	20.57					
6	.22	5.59	.16	4.06	R4105S	R4105SB	.34	8.63	.45	11.43	R4142SF	.63	16.00	.74	18.80	XR1881SN	.63	16.00	.74	18.80
6	.25	6.35	.32	8.13	R4110	R4110B	.59	14.98	.73	18.54	R4147F	.86	21.84	.98	24.89					
6	.25	6.35	.32	8.13	R4110S	R4110SB	.50	12.70	.62	15.74	R4147SF	.79	20.07	.91	23.11	XR1885SN	.79	20.07	.92	23.37
6	.28	7.11	.32	8.13	R4262	R4262B	.59	14.98	.73	18.54	R4266F	.86	21.84	1.00	25.40					
6	.28	7.11	.32	8.13	R4262S	R4262SB	.50	12.70	.64	16.25	R4266SF	.79	20.07	.93	23.62	XR1857SN	.79	20.07	.93	23.62
8	.22	5.59	.16	4.06	R4193	R4193B	.43	10.92	.55	13.97	R4206F	.70	17.78	.81	20.57					
8	.22	5.59	.16	4.06	R4193S	R4193SB	.33	8.38	.45	11.43	R4206SF	.63	16.00	.74	18.80	XR1882SN	.63	16.00	.74	18.80
8	.28	7.11	.32	8.13	R4263S	R4263SB	.50	12.70	.64	16.25	R4267SF	.79	20.07	.93	23.62	XR1858SN	.79	20.07	.93	23.62
8	.31	7.87	.32	8.13	R4111	R4111B	.60	15.24	.75	19.05	R4148F	.86	21.84	1.01	25.65					
8	.31	7.87	.32	8.13	R4111S	R4111SB	.50	12.70	.65	16.51	R4148SF	.79	20.07	.94	23.88	XR1890SN	.79	20.07	.94	23.88
10	.28	7.11	.32	8.13	R4264	R4264B	.59	14.98	.73	18.54	R4268F	.86	21.84	1.00	25.40					
10	.28	7.11	.32	8.13	R4264S	R4264SB	.50	12.70	.64	16.25	R4268SF	.79	20.07	.93	23.62	XR1859SN	.79	20.07	.93	23.62
10	.31	7.87	.32	8.13	R4112	R4112B	.60	15.24	.75	19.05	R4149F	.86	21.84	1.01	25.65					
10	.31	7.87	.32	8.13	R4112S	R4112SB	.50	12.70	.65	16.51	R4149SF	.79	20.07	.94	23.88	XR1891SN	.79	20.07	.94	23.88
1/4	.47	11.94	.44	11.18	R4113	R4113B	.71	18.03	.94	23.87	R4150F	.97	24.64	1.21	30.73					
1/4	.47	11.94	.44	11.18	R4113S	R4113SB	.61	15.49	.85	21.59	R4150SF	.90	22.86	1.14	28.96	XR1894SN	.90	22.86	1.14	28.96
5/16	.47	11.94	.44	11.18	R4114	R4114B	.71	18.03	.94	23.87	R4151F	.97	24.64	1.21	30.73					
5/16	.47	11.94	.44	11.18	R4114S	R4114SB	.61	15.49	.85	21.59	R4151SF	.90	22.86	1.14	28.96	XR1895SN	.90	22.86	1.14	28.96
3/8	.53	13.46	.44	11.18	R4115	R4115B	.71	18.03	.97	24.63	R4152F	.97	24.64	1.24	31.50					
3/8	.53	13.46	.44	11.18	R4115S	R4115SB	.61	15.49	.88	22.35	R4152SF	.90	22.86	1.17	29.72	XR1896SN	.89	22.61	1.16	29.46
Hand					H4A	H4A						H7B						H7B		



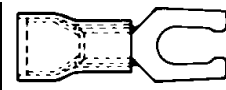
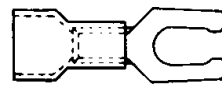
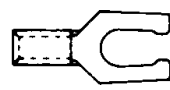
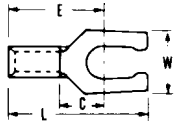
\* 22-16 Rings are marked 22-18 in accordance with MIL-T-7928



# 22/16 Spring Spades

CMA Range 509-3260

Barrel Inside Diameter .059"/ 1.5 mm



**MATERIAL:** COPPER ALLOY **Thickness:** .030"/.762 mm

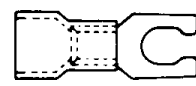
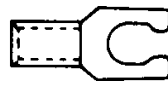
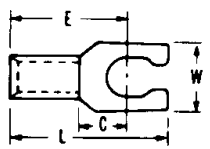
BASIC DIMENSIONS	NON-INSULATED				INSULATED (RED VINYL)				INSULATED (RED NYLON)											
	Stud Size	W In.	W mm	C In.	C mm	E In.	E mm	L In.	L mm	INSUL. DIA. .160"/4.06 mm	Funnel FIT	E In.	E mm	L In.	L mm	INSUL. DIA. .146"/3.71 mm	Funnel FIIG	E In.	E mm	L In.
6	.25	6.35	.26	6.60	SS20923S	.43	10.92	.67	17.02	SS20927SF	.73	18.54	.96	24.38	XSS20937SN	.72	18.29	.95	24.13	
6	.28	7.11	.26	6.60	SS20924S	.43	10.92	.67	17.02	SS20928SF	.73	18.54	.96	24.38	XSS20938SN	.72	18.29	.95	24.13	
8	.28	7.11	.26	6.60	SS20925S	.43	10.92	.67	17.02	SS20929SF	.73	18.54	.96	24.38	XSS20939SN	.72	18.29	.95	24.13	
10	.33	8.38	.26	6.60	SS20926S	.43	10.92	.67	17.02	SS20930SF	.73	18.54	.96	24.38	XSS20940SN	.72	18.29	.95	24.13	
Hand Tool					H4A					H7B					H7B					



# 22/16 Mini Spring Spades

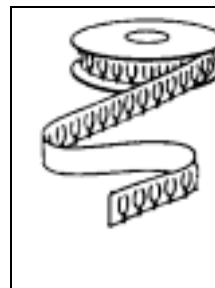
CMA Range 509-3260

Barrel Inside Diameter .059"/ 1.5 mm



**MATERIAL:** COPPER ALLOY **Thickness:** .030"/.762mm

BASIC DIMENSIONS	NON-INSULATED				INSULATED (RED VINYL)				INSULATED (RED NYLON)											
	Stud Size	W In.	W mm	C In.	C mm	E In.	E mm	L In.	L mm	INSUL. DIA. .160"/4.06 mm	Funnel FIT	E In.	E mm	L In.	L mm	INSUL. DIA. .146"/3.71 mm	Funnel FIIG	E In.	E mm	L In.
5	.25	6.35	.26	6.60	SS22466	.43	10.92	.56	14.22	SS22496F	.73	18.54	.85	21.59	XSS22506N	.72	18.29	.84	21.34	
6	.25	6.35	.26	6.60	SS22467	.43	10.92	.56	14.22	SS22497F	.73	18.54	.85	21.59	XSS22507N	.72	18.29	.84	21.34	
8	.28	7.11	.26	6.60	SS22468	.43	10.92	.56	14.22	SS22498F	.73	18.54	.85	21.59	XSS22508N	.72	18.29	.84	21.34	
10	.33	8.38	.26	6.60	SS22469	.43	10.92	.60	15.24	SS22499F	.73	18.54	.89	22.61	XSS22509N	.72	18.29	.88	22.35	
Hand Tool					H4A					H7B					H7B					

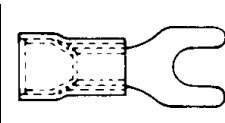
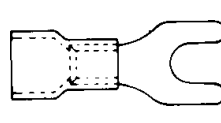
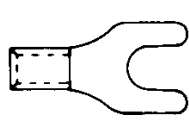
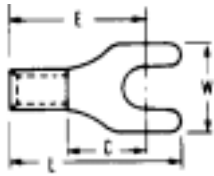


All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example SS20923-T or XSS20937SN-T

# 22/16 Spades

CMA Range 509-3260

Barrel Inside Diameter .059"/1.5 mm



**MATERIAL: COPPER Thickness: .030"/.762 mm**

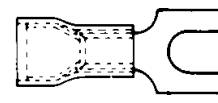
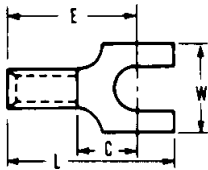
BASIC DIMENSIONS		NON-INSULATED				INSULATED (RED VINYL)				INSULATED (RED NYLON)					
Stud Size	W In.	W mm	C In.	C mm	NIT		E In.	E mm	L In.	L mm	INSUL. DIA. .160"/4.06 mm		INSUL. DIA. .146"/3.71 mm		
					NIT	Brazed					Funnel FIT	E In.	E mm	L In.	L mm
6	.31	7.87	.28	7.11	S4116	S4116B	.55	13.97	.71	18.03	S4154F	.79	20.07	.97	24.64
6	.31	7.87	.28	7.11	S4116S	S4116SB	.45	11.43	.61	15.49	S4154SF	.72	18.29	.90	22.86
8	.31	7.87	.28	7.11	S4117	S4117B	.55	13.97	.71	18.03	S4155F	.79	20.07	.97	24.64
8	.31	7.87	.28	7.11	S4117S	S4117SB	.45	11.43	.61	15.49	S4155SF	.72	18.29	.90	22.86
10	.31	7.87	.28	7.11	S4118	S4118B	.55	13.97	.71	18.03	S4156F	.79	20.07	.97	24.64
10	.31	7.87	.28	7.11	S4118S	S4118SB	.45	11.43	.61	15.49	S4156SF	.72	18.29	.90	22.86
Hand Tool		H4A		H4A		H7B		H7B		H7B		H7B		H7B	



# 22/16 Block Spades

CMA Range 509-3260

Barrel Inside Diameter .059"/1.5 mm



**MATERIAL: COPPER Thickness: .030"/.762mm**

BASIC DIMENSIONS		NON-INSULATED				INSULATED (RED NYLON)							
Stud Size	W In.	W mm	C In.	C mm	NIT		E In.	E mm	L In.	L mm	INSUL. DIA. .146"/3.71 mm		
					NIT	Brazed					Funnel FIIG	E In.	E mm
6	.30	7.62	.19	4.83	BS41162	BS41162B	.46	11.68	.58	14.73			
6	.30	7.62	.19	4.83	BS41162S	BS41162SB	.36	9.14	.48	12.19	XBS24042SN	.62 15.75 .77 19.56	
6	.24	6.10	.32	8.13	BS41163	BS41163B	.59	14.99	.72	18.29			
6	.24	6.10	.32	8.13	BS41163S	BS41163SB	.49	12.45	.63	16.00	XBS24043SN	.75 19.05 .92 23.37	
8	.30	7.62	.19	4.83	BS41172	BS41172B	.46	11.68	.58	14.73			
8	.30	7.62	.19	4.83	BS41172S	BS41172SB	.36	9.14	.48	12.19	XBS20532SN	.62 15.75 .77 19.56	
10	.30	7.62	.19	4.83	BS41182	BS41182B	.46	11.68	.58	14.73			
10	.30	7.62	.19	4.83	BS41182S	BS41182SB	.36	9.14	.48	12.19			
10	.30	7.62	.32	8.13	BS41183	BS41183B	.59	14.99	.72	18.29			
Hand Tool		H4A		H4A		H7B		H7B		H7B		H7B	

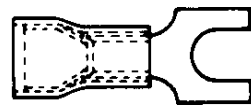
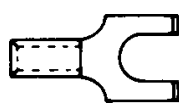
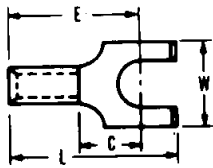


All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example S4116-T or XB2404SN-T

# 22/16 Flanged Spades

CMA Range 509-3260

Barrel Inside Diameter .059"/ 1.5 mm



**MATERIAL: COPPER Thickness: .030"/.762 mm**

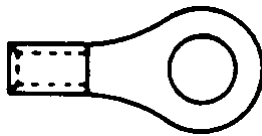
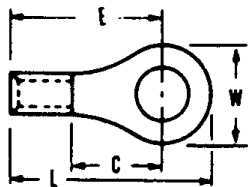
BASIC DIMENSIONS					NON-INSULATED					INSULATED (RED NYLON)					
Stud Size	W In.	W mm	C In.	C mm	NIT		E In.	E mm	L In.	L mm	INSUL. DIA. .146"/3.71 mm				
					Brazed	FIIG					E In.	E mm	L In.	L mm	
2	.18	4.57	.19	4.83	SF20746	SF20746B	.4	11.68	.60	15.24					
2	.18	4.57	.19	4.83	SF20746S	SF20746SB	.3	9.14	.51	12.95	XSF2559SN	.62	15.75	.80	20.32
2	.29	7.37	.19	4.83	SF20747	SF20747B	.4	11.68	.60	15.24					
2	.29	7.37	.19	4.83	SF20747S	SF20747SB	.3	9.14	.51	12.95	XSF2560SN	.62	15.75	.80	20.32
4	.29	7.37	.19	4.83	SF20748	SF20748B	.4	11.68	.60	15.24					
4	.29	7.37	.19	4.83	SF20748S	SF20748SB	.3	9.14	.51	12.95	XSF2561SN	.62	15.75	.80	20.32
6	.29	7.37	.19	4.83	SF20749	SF20749B	.4	11.68	.60	15.24					
6	.29	7.37	.19	4.83	SF20749S	SF20749SB	.3	9.14	.51	12.95	XSF2562SN	.62	15.75	.80	20.32
8	.29	7.37	.19	4.83	SF20750	SF20750B	.4	11.68	.60	15.24					
8	.29	7.37	.19	4.83	SF20750S	SF20750SB	.3	9.14	.51	12.95	XSF2498SN	.62	15.75	.80	20.32
Hand Tool					H4A	H4A						H7B			



# 20/16 Rings, Heavy Duty

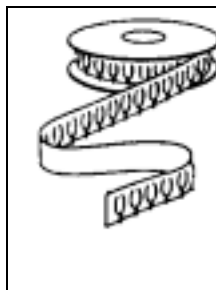
CMA Range 1290-3260

Barrel Inside Diameter .065"/ 1.65 mm



**MATERIAL: COPPER Thickness: .040"/1.02mm**

BASIC DIMENSIONS					NON-INSULATED					
Stud Size	W In.	W mm	C In.	C mm	NIT		E In.	E mm	L In.	L mm
					Brazed					
1/4	.47	11.94	.32	8.13	HDR1339B		.50	12.70	.74	18.80
Hand Tool					H4A					



All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example SF20746-T or Xsf2559SN-T

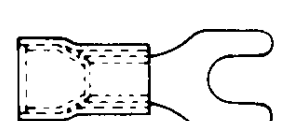
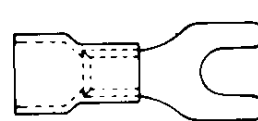
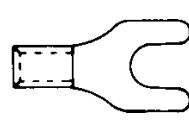
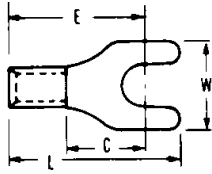




# 16/14 Spades

CMA Range 2050-5180

Barrel Inside Diameter .059"/ 1.5 mm



**MATERIAL: COPPER Thickness: .032"/.813 mm**

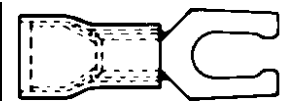
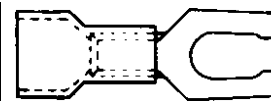
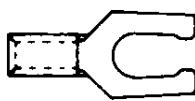
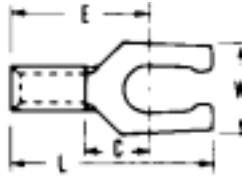
BASIC DIMENSIONS					NON-INSULATED					INSULATED (BLUE VINYL)					INSULATED (BLUE NYLON)						
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm	
																					INSUL. DIA. .198"/5.03 mm
6	.38	9.65	.28	7.11	S4127	S4127B	.55	13.97	.74	18.80	S4165F	.80	20.32	1.01	25.65						
6	.38	9.65	.28	7.11	S4127S	S4127SB	.45	11.43	.64	16.26	S4165SF	.72	18.29	.93	23.62	XS2058SN	.71	18.03	.93	23.62	
8	.38	9.65	.28	7.11	S4128	S4128B	.55	13.97	.74	18.80	S4166F	.80	20.32	1.01	25.65						
8	.38	9.65	.28	7.11	S4128S	S4128SB	.45	11.43	.64	16.26	S4166SF	.72	18.29	.93	23.62	XS2059SN	.71	18.03	.93	23.62	
10	.38	9.65	.28	7.11	S4129	S4129B	.55	13.97	.74	18.80	S4167F	.80	20.32	1.01	25.65						
10	.38	9.65	.28	7.11	S4129S	S4129SB	.45	11.43	.64	16.26	S4167SF	.72	18.29	.93	23.62	XS2060SN	.71	18.03	.93	23.62	
Hand Tool					H4A					H7B					H7B						



# 16/14 Spring Spades

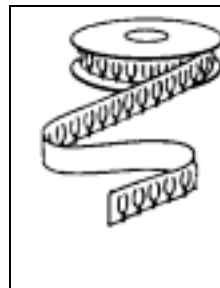
CMA Range 2050-5180

Barrel Inside Diameter .085"/ 2.16 mm



**MATERIAL: COPPER ALLOY Thickness: .030"/.762mm**

BASIC DIMENSIONS					NON-INSULATED					INSULATED (BLUE VINYL)					INSULATED (BLUE NYLON)				
Stud Size	W In.	W mm	C In.	C mm	NIT	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm
6	.28	7.11	.26	6.60	SS20889S	.43	10.92	.67	17.02	SS20947SF	.70	17.78	.96	24.38	XSS20954SN	.69	17.53	.95	24.13
8	.28	7.11	.26	6.60	SS20890S	.43	10.92	.67	17.02	SS20948SF	.70	17.78	.96	24.38	XSS20955SN	.69	17.53	.95	24.13
10	.33	8.38	.26	6.60	SS20891S	.43	10.92	.67	17.02	SS20949SF	.70	17.78	.96	24.38	XSS20956SN	.69	17.53	.95	24.13
Hand Tool					H4A					H7B					H7B				



All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example S4229-T or XSS20947SF-T

# 16/14 Mini Spring Spades

CMA Range 2050-5180

Barrel Inside Diameter .085" / 2.16 mm



**MATERIAL:** COPPER ALLOY **Thickness:** .030"/.762 mm

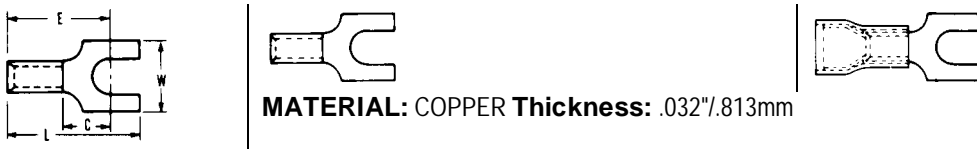
BASIC DIMENSIONS					NON-INSULATED					INSULATED (BLUE NYLON) INSUL. DIA. .198"/5.03 mm					INSULATED (BLUE NYLON) INSUL. DIA. .178"/4.52 mm				
Stud Size	W In.	W mm	C In.	C mm	NIT	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm
5	.25	6.35	.26	6.60	SS22470	.43	10.92	.56	14.22	SS22530F	.70	17.78	.85	21.59	XSS22540N	.69	17.53	.84	21.34
6	.25	6.35	.26	6.60	SS22471	.43	10.92	.56	14.22	SS22531F	.70	17.78	.85	21.59	XSS22541N	.69	17.53	.84	21.34
8	.28	7.11	.26	6.60	SS22472	.43	10.92	.56	14.22	SS22532F	.70	17.78	.85	21.59	XSS22542N	.69	17.53	.84	21.34
10	.33	8.38	.26	6.60	SS22473	.43	10.92	.60	15.24	SS22533F	.70	17.78	.89	22.61	XSS22543N	.69	17.53	.88	22.35
Hand Tool					H4A					H7B					H7B				



# 16/14 Block Spades

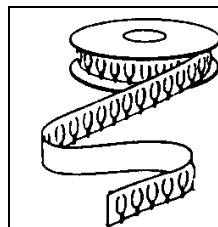
CMA Range 2050-5180

Barrel Inside Diameter .085" / 2.16 mm



**MATERIAL:** COPPER **Thickness:** .032"/.813mm

BASIC DIMENSIONS					NON-INSULATED					INSULATED (BLUE NYLON) INSUL. DIA. .178"/4.52 mm					
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	F In.	F mm	I In.	I mm	Funnel FIIG	F In.	F mm	I In.	I mm
4	.22	5.59	.38	9.65	BS41270	BS41270B	.64	16.26	.76	19.30					
4	.22	5.59	.38	9.65	BS41270S	BS41270SB	.55	13.97	.67	17.02	XBS20579SN	.81	20.57	.95	24.13
6	.30	7.62	.19	4.83	BS41272	BS41272B	.46	11.68	.58	14.73					
6	.30	7.62	.19	4.83	BS41272S	BS41272SB	.36	9.14	.48	12.19	XBS20582SN	.62	15.75	.76	19.30
6	.25	6.35	.38	9.65	BS41273	BS41273B	.64	16.26	.83	21.08					
6	.25	6.35	.38	9.65	BS41273S	BS41273SB	.55	13.97	.73	18.54	XBS20583SN	.81	20.57	1.01	25.65
8	.30	7.62	.19	4.83	BS41282	BS41282B	.46	11.68	.58	14.73					
8	.30	7.62	.19	4.83	BS41282S	BS41282SB	.36	9.14	.48	12.19	XBS20592SN	.62	15.75	.76	19.30
10	.31	7.87	.38	9.65	BS41278	BS41278B	.64	16.26	.90	22.86					
10	.31	7.87	.38	9.65	BS41278S	BS41278SB	.55	13.97	.80	20.32	XBS20588SN †	.81	20.57	1.08	27.43
10	.30	7.62	.19	4.83	BS41292	BS41292B	.46	11.68	.58	14.73					
10	.30	7.62	.19	4.83	BS41292S	BS41292SB	.36	9.14	.48	12.19	XBS20602SN	.62	15.75	.76	19.30
Hand Tool					H4A					H7B					

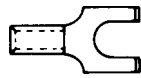
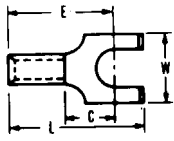


All items listed on this page (except those marked with dagger symbol †) are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example SS22473-T or XBS20602SN-T

# 16/14 Flanged Spades

CMA Range 2050-5180

Barrel Inside Diameter .085"/ 2.16 mm



**MATERIAL:** COPPER **Thickness:** .032"/.813 mm

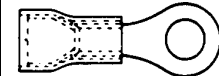
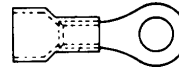
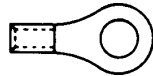
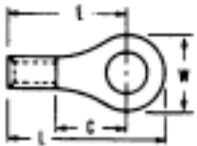
BASIC DIMENSIONS					NON-INSULATED					INSULATED (BLUE NYLON)						
										INSUL. DIA. .178"/4.52 mm						
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm	
6	.29	7.37	.19	4.83	SF20855S	SF20855SB	.36	9.14	.51	12.95	XSF20861SN	.62	15.75	.79	20.07	
8	.29	7.37	.19	4.83	SF20856S	SF20856SB	.36	9.14	.51	12.95	XSF20862SN	.62	15.75	.79	20.07	
<b>Hand Tool</b>					H4A	H4A						H7B				



# 16/14 Rings-Heavy Duty

CMA Range 2050-5180

Barrel Inside Diameter .110"/ 2.79 mm

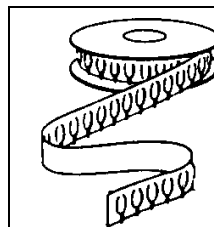


**MATERIAL:** COPPER **Thickness:** .049"/1.24mm

BASIC DIMENSIONS					NON-INSULATED					INSULATED (YELLOW WITH BLACK STRIPES)										
										INSUL. DIA. .265"/6.73 mm										
										INSUL. DIA. .239"/6.07 mm										
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT (Vinyl)	E In.	E mm	L In.	L mm	Funnel FIIG (Nylon)	E In.	E mm	L In.	L mm
6	.25	6.35	.28	7.11	HDR12	HDR12B	.55	13.97	.67	17.02	HDR27F	.89	22.61	1.01	25.65	XHDR67N	.90	22.86	1.02	25.91
6	.35	8.89	.28	7.11	HDR21		.55	13.97	.73	18.54						XHDR61N	.90	22.86	1.08	27.43
10	.35	8.89	.28	7.11	HDR23	HDR23B	.55	13.97	.73	18.54	HDR33F	.89	22.61	1.06	26.92	XHDR63N	.90	22.86	1.08	27.43
1/4	.48	12.19	.36	9.14	HDR24	HDR24B	.63	16.00	.87	22.10	HDR34F	.96	24.38	1.20	30.48	XHDR64N	.98	24.89	1.22	30.99
<b>Hand Tool</b>					H4A	H4A						H6E								



▲ For Brazed Barrel, Change Suffix to BF.

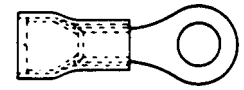
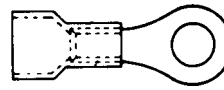
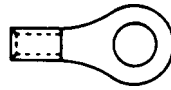
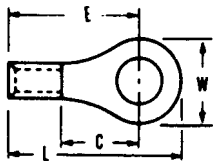


All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example SF20855S-T or XHDR63N-T

# 16/14 Rings-Heavy Duty

CMA Range 2050-5180

Barrel Inside Diameter .110"/ 2.79 mm



**MATERIAL: COPPER Thickness: .049"/1.24 mm**

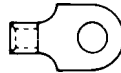
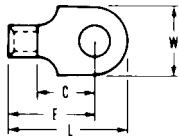
BASIC DIMENSIONS					NON-INSULATED						INSULATED (YELLOW WITH THREE BLACK STRIPES)									
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	INSUL. DIA. .265"/6.73 mm				INSUL. DIA. .239"/6.07 mm					
											Funnel FIT (Vinyl)	E In.	E mm	L In.	L mm	Funnel FIIG (Nylon)	E In.	E mm	L In.	L mm
10	.53	13.46	.37	9.40	HDR1361	HDR1361B	.64	16.26	.90	22.86	HDR1374BF	.95	24.13	1.21	30.73	XHDR1380N	.97	24.64	1.23	31.24
1/4	.53	13.46	.37	9.40	HDR1362	HDR1362B	.64	16.26	.90	22.86	HDR1375BF	.95	24.13	1.21	30.73					
5/16	.53	13.46	.37	9.40	HDR1363	HDR1363B	.64	16.26	.90	22.86	HDR1376BF	.95	24.13	1.21	30.73	XHDR1382N	.97	24.64	1.23	31.24
Hand Tool					H4A	H4A					H6E					H6E				



# 14/12 Rings

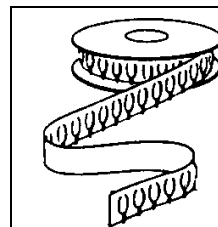
CMA Range 3260-8230

Barrel Inside Diameter .094"/ 2.39 mm



**MATERIAL: COPPER Thickness: .040"/1.02mm**

BASIC DIMENSIONS					NON-INSULATED					
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm
10	.31	10.67	.34	8.64	R141210B	.51	12.95	.73	18.54	
1/4	.42	10.67	.34	8.64	R141214B	.51	12.95	.73	18.54	
Hand Tool					H4A					

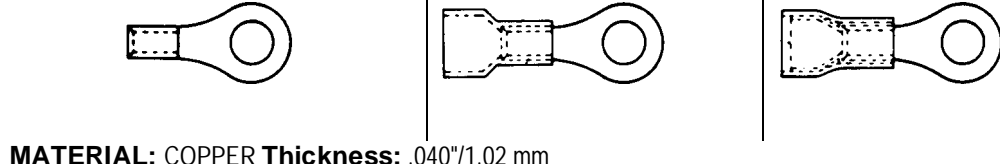
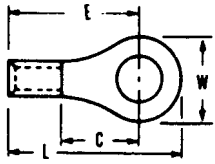


All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example HDR1363B-T or R141210B-T

# 12/10 Rings

CMA Range 5180-13,100

Barrel Inside Diameter .129"/ 3.27 mm



**MATERIAL: COPPER Thickness: .040"/1.02 mm**

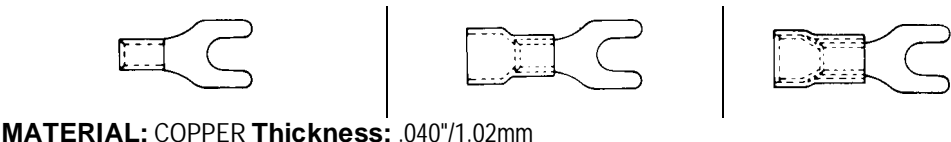
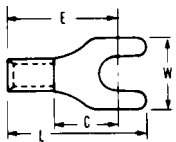
BASIC DIMENSIONS					NON-INSULATED					INSULATED (YELLOW VINYL)					INSULATED (YELLOW NYLON)					
										INSUL. DIA. .265"/6.73 mm					INSUL. DIA. .239"/6.07 mm					
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm
4	.28	7.11	.2	6.86	R3454	R3454B	.54	13.72	.68	17.27	R4182F	.88	22.35	1.02	25.91	XR5105N	.89	22.61	1.03	26.16
6	.28	7.11	.2	6.86	R3455	R3455B	.54	13.72	.68	17.27	R4183F	.88	22.35	1.02	25.91	XR5106N	.89	22.61	1.03	26.16
6	.31	7.87	.2	6.86	R3453	R3453B	.54	13.72	.70	17.78	R4188F	.87	22.10	1.03	26.16	XR5118N	.88	22.35	1.04	26.42
6	.37	9.40	.2	7.11	R3456	R3456B	.56	14.22	.74	18.80	R4168F	.88	22.35	1.07	27.18	XR5107N	.90	22.86	1.09	27.69
8	.28	7.11	.2	6.86	R3452	R3452B	.54	13.72	.68	17.27	R4189F	.88	22.35	1.02	25.91	XR5113N	.89	22.61	1.03	26.16
8	.37	9.40	.2	7.11	R2994	R2994B	.56	14.22	.74	18.80	R4169F	.88	22.35	1.07	27.18	XR5108N	.90	22.86	1.09	27.69
10	.37	9.40	.2	7.11	R3457	R3457B	.56	14.22	.74	18.80	R4170F	.88	22.35	1.07	27.18	XR5109N	.90	22.86	1.09	27.69
1/4	.52	13.21	.4	11.94	R3458	R3458B	.75	19.05	1.01	25.65	R4171F	1.07	27.18	1.33	33.78	XR5110N	1.09	27.69	1.35	34.29
5/16	.52	13.21	.4	11.94	R3459	R3459B	.75	19.05	1.01	25.65	R4172F	1.07	27.18	1.33	33.78	XR5111N	1.09	27.69	1.35	34.29
3/8	.59	14.99	.5	12.70	R3220	R3220B	.78	19.81	1.07	27.18	R4173F	1.10	27.94	1.39	35.31	XR5112N	1.12	28.45	1.41	35.81
7/16	.71	18.03	.5	12.70	R3222	R3222B	.78	19.81	1.13	28.70	R4178F	1.10	27.94	1.46	37.08	XR5114N	1.12	28.45	1.47	37.34
1/2	.71	18.03	.5	12.70	R3223	R3223B	.78	19.81	1.13	28.70	R4179F	1.10	27.94	1.46	37.08	XR5117N	1.12	28.45	1.47	37.34
Hand Tool					H4A	H4A						H6E						H6E		



# 12/10 Spades

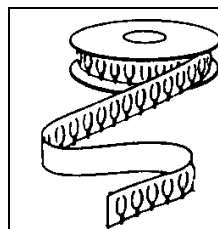
CMA Range 5180-13,100

Barrel Inside Diameter .129"/ 3.27 mm



**MATERIAL: COPPER Thickness: .040"/1.02mm**

BASIC DIMENSIONS					NON-INSULATED					INSULATED (YELLOW VINYL)					INSULATED (YELLOW NYLON)					
										INSUL. DIA. .265"/6.73 mm					INSUL. DIA. .239"/6.07 mm					
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm
6	.38	9.65	.27	6.86	S2995	S2995B	.55	13.97	.73	18.54	S4174F	.87	22.10	1.07	27.18	XS2587N	.86	21.84	1.06	26.92
8	.38	9.65	.27	6.86	S3478	S3478B	.55	13.97	.73	18.54	S4175F	.87	22.10	1.07	27.18	XS2588N	.86	21.84	1.06	26.92
10	.38	9.65	.27	6.86	S3479	S3479B	.55	13.97	.73	18.54	S4176F	.87	22.10	1.07	27.18	XS2589N	.86	21.84	1.06	26.92
Hand Tool					H4A	H4A						H6E						H6E		



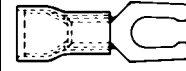
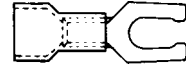
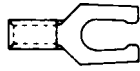
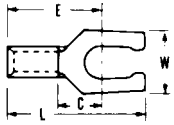
All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example R3454-T or XR5105N -T



# 12/10 Spring Spades

CMA Range 5180-13,100

Barrel Inside Diameter .129"/ 3.27 mm



**MATERIAL:** COPPER ALLOY **Thickness:** .040"/1.02 mm

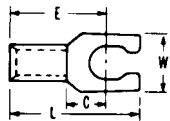
BASIC DIMENSIONS					NON-INSULATED					INSULATED (YELLOW VINYL)					INSULATED (YELLOW NYLON)				
Stud Size	W In.	W mm	C In.	C mm	NIT	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm
6	.31	7.87	.26	6.60	SS20828	.52	13.21	.78	19.81	SS20832F	.85	21.59	1.13	28.70	XSS20836N	.85	21.59	1.12	28.45
8	.31	7.87	.26	6.60	SS20829	.52	13.21	.78	19.81	SS20833F	.85	21.59	1.13	28.70	XSS20837N	.85	21.59	1.12	28.45
10	.33	8.38	.26	6.60	SS20830	.52	13.21	.78	19.81	SS20834F	.85	21.59	1.13	28.70	XSS20838N	.85	21.59	1.12	28.45
1/4	.45	11.43	.26	6.60	SS20831	.52	13.21	.78	19.81	SS20815F	.85	21.59	1.13	28.70	XSS20887N	.85	21.59	1.12	28.45
Hand Tool					H4A					H6E					H6E				



# 12/10 Mini Spring Spades

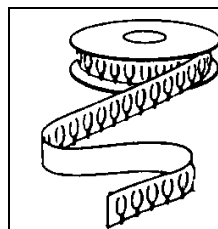
CMA Range 5180-13,100

Barrel Inside Diameter .129"/ 3.27 mm



**MATERIAL:** COPPER ALLOY **Thickness:** .040"/1.02mm

BASIC DIMENSIONS					NON-INSULATED					INSULATED (YELLOW VINYL)					INSULATED (YELLOW NYLON)					
Stud Size	W In.	W mm	C In.	C mm	NIT	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm	
5	.25	6.35	.26	6.60	SS22474	.53	13.46	0.65	16.51	SS22564F	.85	21.59	0.99	25.15	XSS22574N	.85	21.59	.99	25.15	
6	.25	6.35	.26	6.60	SS22475	.53	13.46	.65	16.51	SS22565F	.85	21.59	0.99	25.15	XSS22575N	.85	21.59	.99	25.15	
8	.28	7.11	.26	6.60	SS22476	.53	13.46	.65	16.51	SS22566F	.85	21.59	0.99	25.15	XSS22576N	.85	21.59	.99	25.15	
10	.33	8.38	.26	6.60	SS22477	.53	13.46	.70	17.78	SS22567F	.85	21.59	1.05	26.67	XSS22577N	.85	21.59	.99	25.15	
Hand Tool					H4A					H6E					H6E					

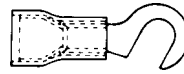
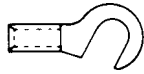
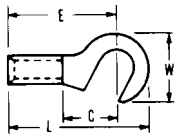


All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example R3454-T or XR5105N -T

# 12/10 Hooks

CMA Range 5180-13,100

Barrel Inside Diameter .129"/ 3.27 mm



**MATERIAL: COPPER Thickness: .040"/1.02 mm**

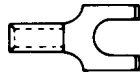
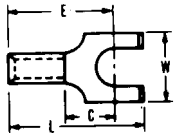
BASIC DIMENSIONS						NON-INSULATED						INSULATED (YELLOW NYLON)					
												INSUL. DIA. .239"/6.07 mm					
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm		
6	.31	7.87	.27	6.86	BS29952	BS29952B	.54	13.72	.68	17.27							
6	.31	7.87	.27	6.86	BS29953	BS29953B	.54	13.72	.76	19.30	XBS25873N	.85	21.59	1.10	27.94		
8	.31	7.87	.27	6.86	BS34782	BS34782B	.54	13.72	.68	17.27							
8	.31	7.87	.27	6.86	BS34783	BS34783B	.54	13.72	.76	19.30							
10	.31	7.87	.27	6.86	BS34792	BS34792B	.54	13.72	.68	17.27	XBS25892N	.85	21.59	1.02	25.91		
10	.31	7.87	.27	6.86	BS34793	BS34793B	.54	13.72	.76	19.30	XBS25893N	.85	21.59	1.10	27.94		
Hand Tool						H4A	H4A				H6E						



# 12/10 Flanged Spades

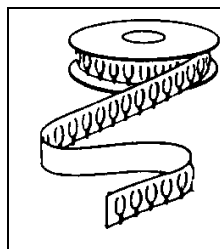
CMA Range 5180-13,100

Barrel Inside Diameter .129"/ 3.27 mm



**MATERIAL: COPPER Thickness: .040"/1.02mm**

BASIC DIMENSIONS						NON-INSULATED						INSULATED (YELLOW NYLON)					
												INSUL. DIA. .239"/6.07 mm					
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm		
8	.38	9.65	.25	6.35	SF22453	SF22453B	.52	13.21	.74	18.80	XSF2509N	.83	21.08	1.07	27.18		
10	.38	9.65	.25	6.35	SF22456	SF22456B	.52	13.21	.74	18.80							
Hand Tool						H4A	H4A				H6E						

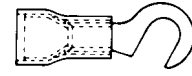
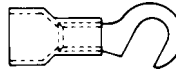
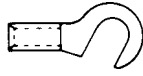
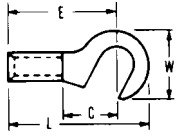


All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number.  
Example BS34793-T or XSF2509N -T

# 12/10 Hooks

CMA Range 5180-13,100

Barrel Inside Diameter .129"/ 3.27 mm



**MATERIAL: COPPER Thickness: .040"/1.02 mm**

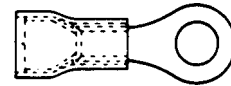
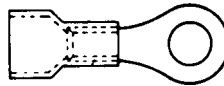
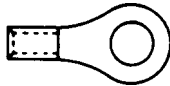
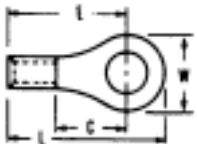
BASIC DIMENSIONS					NON-INSULATED					INSULATED (YELLOW VINYL)					INSULATED (YELLOW NYLON)								
										INSUL. DIA. .265"/6.73 mm					INSUL. DIA. .239"/6.07 mm								
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm			
6	.38	9.65	.28	7.11	H22452	H22452 B	.56	14.22	.74	18.80	H20265F	.87	22.10	1.08	27.43	XH21608N	.87	22.10	1.08	27.43			
8	.38	9.65	.28	7.11	H22454	H22454 B	.56	14.22	.74	18.80	H20266F	.87	22.10	1.08	27.43	XH21609N	.87	22.10	1.08	27.43			
10	.38	9.65	.28	7.11	H22455	H22455 B	.56	14.22	.74	18.80	H20267F	.87	22.10	1.08	27.43	XH21610N	.87	22.10	1.08	27.43			
Hand Tool					H4A	H4A						H6E						H6E					



# 12/10 Rings (Railroad Terminals)

CMA Range 5180-13,100

Barrel Inside Diameter .129"/ 3.27 mm



**MATERIAL: COPPER Thickness: .040"/1.02mm**

BASIC DIMENSIONS					NON-INSULATED					INSULATED (BLACK VINYL)					INSULATED (BLACK NYLON)								
										INSUL. DIA. .265"/6.73 mm					INSUL. DIA. .239"/6.07 mm								
Stud Size	W In.	W mm	C In.	C mm	NIT	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm	Funnel FIIG	E In.	E mm	L In.	L mm			
10	.53	13.46	.37	9.40	R3446	R3446B	.63	16.00	.90	22.86	R4246BF	.97	24.64	1.25	31.75								
1/4	.53	13.46	.37	9.40	R3447	R3447B	.63	16.00	.90	22.86	R4247BF	.97	24.64	1.25	31.75	XR4256N	.96	24.38	1.24	31.50			
5/16	.53	13.46	.37	9.40	R3448	R3448B	.63	16.00	.90	22.86	R4248BF	.97	24.64	1.25	31.75	XR4257N	.96	24.38	1.24	31.50			
Hand Tool					H4A	H4A						H6E						H6E					



## Splices and Connectors for Wire Sizes 26 to 6 AWG

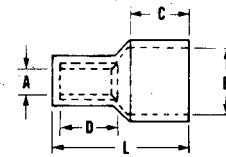
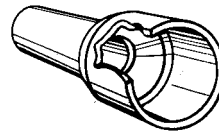
All splices and connectors in this section are made from pure copper for the highest conductivity. They are electro-tin plated to assure corrosion resistance. Most splices and connectors are marked with wire sizes for quick identification.

	<p><b>PIGTAIL CONNECTORS</b> An assembly of a tin-plated, pure copper insert and a nylon closed end insulation cap.</p> <ul style="list-style-type: none"> <li>Insert is electro-tin plated for corrosion resistance</li> </ul>	<ul style="list-style-type: none"> <li>Wire range stamped on each connector for quick identification</li> <li>An excellent low cost means for making connections between 2 or more conductors</li> </ul>	<ul style="list-style-type: none"> <li>Cannot "back-off" the wires as screw-on connectors can</li> </ul>
	<p><b>BUTT CONNECTORS</b> Available in the following styles: <b>NIT</b>-Non-Insulated, unbrazed barrel, highly economical <b>NIT BRAZED</b>-Brazed barrel can be crimped anywhere (even on seam) without splitting</p>	<p><b>SEAMLESS</b>-Non-Insulated, highly economical, made from tubular stock, available in NIT, FIT, and FIT Flared versions. <b>FIT</b>-Insulated barrel, insulation overhang provides support for wire insulation <b>FIT FLARED</b>- Insulation flared to allow use of wire with heavier insulation (illustrated).</p>	<p>All butt connectors have chamfered barrel ends for fast, easy wire insertion, built-in wire stop, insulation color code to standard commercial specifications, and serrated "V" grooves in barrel to assure maximum holding power.* Both ends must be crimped.</p>
	<p><b>TAP SPLICES AND WIRE TAPS</b></p> <ul style="list-style-type: none"> <li>Insulation Displacement Connector Tap Splices make splicing wires quick and easy.</li> <li>No wire stripping necessary -- no special application tooling necessary</li> <li>Insulated, color coded by wire size</li> <li>Tap, pigtail, Butt and Parallel splice style combinations available 22-10 AWG.</li> </ul>		
	<p><b>WINDOW BUTT CONNECTORS</b> <b>FIG</b>-Fixed Insulated Insulation Grip An assembly of an electro-tin plated copper connector and insulation. Insulation grip firmly grips wire insulation to protect against high vibration failures. Offers utmost in quality, reliability and performance.</p>	<p><b>MG</b>-Metal Grip Non-Insulated An electro-tin plated copper connector firmly grips wire insulation to protect against high vibration failures.</p>	
<p><b>INSULATED FIG</b></p>	<p>All Window Butt Connectors have funneled barrel to guide wire ends easily into position for crimping. Built-in wire stop and inspection window. Insulation is color coded to standard commercial specifications. Insulated connectors meet requirements of Military specifications MIL-T-7928/5A</p>	<p><b>NON-INSULATED MG</b></p>	
	<p><b>STEPDOWN BUTT CONNECTORS</b> Available in the following styles: <b>NIT BRAZED</b>-Non-Insulated, brazed barrel.</p>	<p><b>FIT</b>-Fixed Insulated Terminal (Illustrated) <b>FIT FLARED</b>-Fixed Insulated Terminal. Flared ends to accept heavier wire insulation. Joins unlike sizes together; end to end</p>	<p>Accepts a different wire size. Electro-tin plated copper connector and inner sleeve with Nylon or PVC insulation. Restricted end is color coded for fast recognition.</p>
	<p><b>PARALLEL SPLICES</b> Available in the following styles: <b>NIT</b>-Non-Insulated, unbrazed barrel, Highly economical. <b>NIT-BRAZED</b>-Brazed barrel can be</p>	<p>Crimped anywhere (even seam) without splitting. Offers greater vibration resistance <b>FIT</b>- Fixed Insulated Terminal. Barrel insulated; insulation overhang provides insulation support for wire <b>FIT FLARED</b>- Insulation flared to allow use</p>	<p>of wire with heavier insulation (illustrated) All parallels have chamfered barrel ends for fast, easy wire insertion, serrated "V" grooves in barrel to assure maximum holding power and only require a single central crimp.</p>
	<p><b>3-WAY &amp; 4-WAY CONNECTORS</b> Available in the following styles: <b>NIT</b>-Non-Insulated, unbrazed barrel, most economical</p>	<p><b>NIT BRAZED</b>-Non-Insulated, brazed barrel-can be crimped anywhere (even on seam) without splitting. <b>FUNNEL FIT</b>-Fixed Insulated Terminal with Funnel entry eliminates wire strand</p>	<p>Hang-up for fast, easy wire insertion. (illustrated) All 3-Way and 4-Way Connectors have serrated "V" grooves in barrel to assure maximum holding power.</p>

\* Serrated "V" Grooves are not applicable to Seamless Butt Connectors.

# 22/8 Pigtails

WIRE SIZE



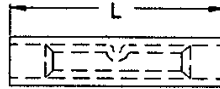
Wire Range	FIT	CMA Range	Insulation	Insert	A In.	A mm	B In.	B mm	C In.	C mm	D In.	D mm	L In.	L mm	Hand Tool
22-14	NP5115	508-5180	Nylon	Copper	.10	2.54	.28	7.11	.19	4.83	.32	8.13	.73	18.54	H9/H75
18-10	NP5670	1600-13,000	Nylon	Copper	.16	4.06	.40	10.16	.27	6.86	.32	8.13	.81	20.57	H18/H68
18-8	NP5671 †	1600-20,800	Nylon	Copper	.22	5.59	.49	12.45	.39	9.91	.44	11.18	1.09	27.69	H15



All items listed on this page (except those marked with dagger symbol), are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number.

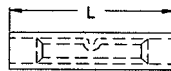
Example: NP5115-T or B4069BN-T

# 22/10 Butt Connectors

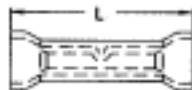


MATERIAL: COPPER

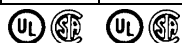
NON-INSULATED																
Wire Range	CMA Range	NIT	NIT Brazed	ID In.	ID mm	OD In.	OD mm	L In.	L mm	NIT Seamless	ID In.	ID mm	OD In.	OD mm	L In.	L mm
22-16	509-3260	B1818	B1818B	.064	1.63	.136	3.45	.58	14.73	B1818S	.060	1.52	.127	3.22	.63	16.00
16-14	2050-5180	B1819	B1819B	.085	2.16	.159	4.04	.58	14.73	B1819S	.093	2.36	.158	4.01	.63	16.00
14-12	3260-8230		B1920B	.096	2.44	.172	4.37	.69	17.53							
12-10	5180-13,100	B2151	B2151B	.131	3.33	.221	5.61	.74	18.80	B2151S	.141	3.58	.221	5.61	.82	20.83
Hand Tool	H4A	H4A								H4A						



INSULATED (NYLON)																
Wire Range	CMA Range	FIT Flared	FIT Brazed	ID In.	ID mm	L In.	L mm	FIT Seamless	ID In.	ID mm	L In.	L mm	Insul. Dia. In.	Insul. Dia. mm	Insul. Color	Hand Tool H270 Die
22-16	509-3260	B4067N	B4067BN	.064	1.63	1.04	26.42	B4067SN	.060	1.52	1.13	28.70	.125	3.18	Red	H7B
16-14	2050-5180	B4068N	B4068BN	.085	2.16	1.04	26.42	B4068SN	.093	2.36	1.13	28.70	.150	3.81	Blue	H7B
14-12	3260-8230		B1921BN	.096	2.44	1.17	29.72						.164	4.17	Green	27180
12-10	5180-13,100	B4069N	B4069BN	.131	3.33	1.23	31.24	B4069SN	.141	3.58	1.28	32.51	.210	5.33	Yellow	H6E
Hand Tool																See Above

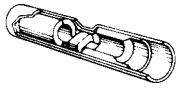


INSULATED (VINYL)																
Wire Range	CMA Range	FIT Flared	FIT Brazed	ID In.	ID mm	L In.	L mm	FIT Seamless	ID In.	ID mm	L In.	L mm	Insul. Dia. In.	Insul. Dia. mm	Insul. Color	Hand Tool H270 Die
22-16	509-3260	B4070	B4070B	.064	1.63	1.05	26.67	B4070S	.060	1.52	1.15	29.21	.160	4.06	Red	H7B
16-14	2050-5180	B4071	B4071B	.085	2.16	1.07	27.18	B4071S	.093	2.36	1.15	29.21	.195	4.95	Blue	H7B
14-12	3260-8230		B1922B	.096	2.44	1.15	29.21						.210	5.33	Green	27180
12-10	5180-13,100	B4072 †	B4072B	.131	3.33	1.23	31.24	B4072S	.141	3.58	1.30	33.02	.265	6.73	Yellow	H6E
Hand Tool																See Above

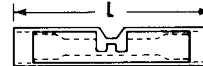
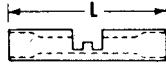


# 26/10 Window Butt Connectors

WIRE SIZE



MATERIAL: COPPER



Wire Range	CMA Range	Inside Barrel Dia. In.	Inside Barrel Dia. mm	NON-INSULATED			INSULATED (NYLON)							
				MG Brazed	L In.	L mm	Hand Tool	FIIG	Insul. Color	Insul. Dia. In.	Insul. Dia. mm	L In.	L mm	Hand Tool
26-24	202-320	.027	0.69	B1877B* † ▲	.66	16.76	H4A	B1868BN † ▲	Yellow	.070	1.78	.86	21.84	H8A
24-20	320-1290	.043	1.09	B1878B* † ▲	.73	18.54	H4A	B1841BN ▲	Clear	.100	2.54	.98	24.89	H8A
22-18	509-2050	.061	1.55	B1873B ▲	.84	21.34	H4A	B1870BN ▲	Red	.128	3.25	1.16	29.46	H7B
16-14	2050-5180	.083	2.11	B1874B • ▲	.86	21.84	H4A	B1871BN ▲	Blue	.152	3.86	1.16	29.46	H7B
12-10	5180-13,100	.129	3.28	B1875B • †	1.27	32.26	H4A	B1872BN	Yellow	.208	5.28	1.57	39.88	H6E

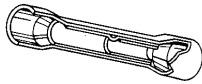


\* Not UL Listed  
• Not CSA List

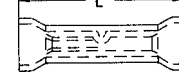
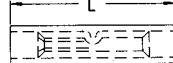
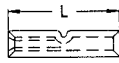


▲ Not Brazed

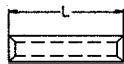
# Step Down Butt Connectors



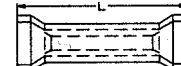
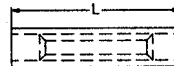
MATERIAL: COPPER



Wire Range	CMA Range	NON-INSULATED				INSULATED (NYLON)			INSULATED (VINYL)								
		NIT Brazed	L In.	L mm	Hand Tool	Insul. Color	FIT	Insul. Dia. In.	Insul. Dia. mm	FIT Flared	Insul. Dia. In.	Insul. Dia. mm	L In.	L mm	Hand Tool		
22-16	14-12	509-3260	3260-8230	B4040B	.69	17.53	H4A	Green	B4044BN	.164	4.17	B4044BF	.210	5.33	1.18	29.27	H7B
16-14	12-10	2050-5180	5180-13,100	B4041B	.74	18.80	H4A	Yellow	B4045BN	.211	5.36	B4045BF	.265	6.73	1.30	33.02	H6E



MATERIAL: COPPER



Wire Range	NON-INSULATED								INSULATED (NYLON)				INSULATED (VINYL)						
	NIT	NIT Brazed	ID In.	ID mm	OD In.	OD mm	L In.	L mm	Hand Tool	FIT	FIT Brazed	Insul. Dia. In.	Insul. Dia. mm	FIT Flared	FIT Flared Brazed	L In.	L mm	Insul. Color	Hand Tool
26-24	P4019 • †		.033	.084	.078	1.98	.21	5.33											
22-16	P4130	P4130B	.064	1.63	.136	3.45	.33	8.38	H4A	P4131N	P4131BN	.125	3.18	P4132	P4132B	.76	19.30	Red	H7B
16-14	P4137	P4137B	.085	2.16	.158	4.01	.33	8.38	H4A	P4133N †	P4133BN †	.150	3.81	P4134 †		.76	19.30	Blue	H7B
12-10	P4138 †	P4138B	.131	3.33	.221	5.61	.33	8.38	H4A	P4135N †	P4135BN †	.210	5.33	P4136 †		.83	21.08	Yellow	H6E



• P4019 Not UL or CSA listed



All items listed on this page (except those marked with dagger symbol), are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number.

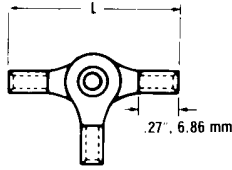
Example: B1873B-T or B4044BN-T



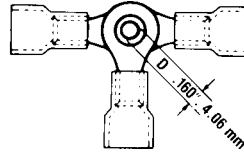
# 22/10 3-Way Connectors

WIRE SIZE

CMA Range 509-13,100



**MATERIAL: COPPER**

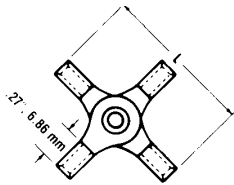


Wire Range	NON_INSULATED						INSULATED (VINYL)				
	NIT	NIT Brazed	L In.	L mm	Barrel I.D. In.	Barrel I.D. mm	Funnel FIT	L In.	L mm	Insul. Color	Hand Tool
22-16	32216	32216B	1.19	30.23	0.061	1.55	312216F	1.71	43.43	Red	H7B
16-14	31614	31614B	1.11	28.19	0.085	2.16	311614F	1.66	42.16	Blue	H7B
12-10	31210	31210B	1.11	28.19	0.131	3.33	311210F	1.77	44.96	Yellow	H6E
Hand Tool	H4A	H4A					See End Column				

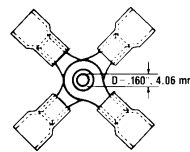


# 22/10 4-Way Connectors

CMA Range 509-13,100



**MATERIAL: COPPER**



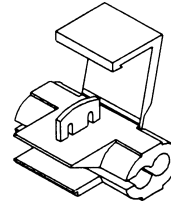
Wire Range	NON_INSULATED						INSULATED (VINYL)				
	NIT	NIT Brazed	L In.	L mm	Barrel I.D. In.	Barrel I.D. mm	Funnel FIT	L In.	L mm	Insul. Color	Hand Tool
22-16	42216	42216B	1.19	30.23	0.061	1.55	412216F	1.71	43.43	Red	H7B
16-14	41614	41614B	1.11	28.19	0.085	2.16	411614F	1.66	42.16	Blue	H7B
12-10	41210	41210B	1.11	28.19	0.131	3.33	411210F	1.77	44.96	Yellow	H6E
Hand Tool	H4A	H4A					See End Column				



**Insulation Displacement**

**22/10 3-Tap Splices**

WIRE SIZE

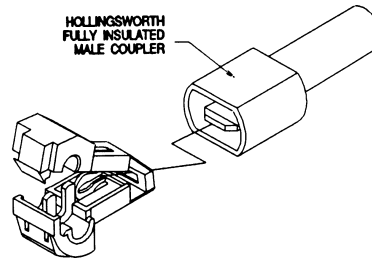


Catalog Number	Wire Range	Color Code	Splice Combinations			
			Tap	Pigtail	Butt	Parallel
RTS	22-16	Red				
BTS	18-14	Blue				
WTS	18-14	White				
YTS	12-10	Yellow				

**Insulation Displacement**  
**22/10 Wire Taps**

WIRE SIZES

Mates with .250 Fully Insulated Male Coupler



Hollingsworth Wire Taps are excellent for any application which calls for tapping into any existing conductor where a fully insulated connection is desired. Our Wire Taps mate with Fully Insulated Male Couplers manufactured by Hollingsworth and all major manufacturers of equivalent items. No special tools are required.

Catalog Number	Wire Range	Color Code
RTTAP	22-18	Red
BTTAP	16-14	Blue
YTTAP	12-10	Yellow

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# SECTION 3

 HOLLINGSWORTH

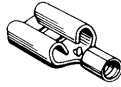
## Quick Disconnect Terminals for Wire Sizes 26 – 10 AWG

### BASIC BARREL STYLES

#### NIT Non-Insulated Terminal

Consists of a bare terminal with butted seam barrel

- Chamfered barrel end for fast, easy wire insertion
- Highly economical



#### NIT-IG Non-Insulated Terminal with Insulation Grip

Same as basic NIT with addition of "U" extension to firmly grip the wire insulation.

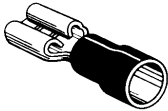
- Prevent insulation from unraveling
- Protects against high vibration failures.



#### FUNNEL FIT Fixed Insulated Terminal with Funnel Entry

An assembly of a bare terminal with a tightly fitted funneled insulation sleeve made from PVC.

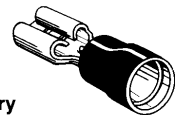
- Offers excellent insulating properties
- Resists minor vibrations
- Funnel Entry for fast, easy wire insertion
- Color coded to standard commercial specifications



#### FUNNEL FIIG Fixed Insulated Insulation Grip with Funnel Entry

An assembly of a bare terminal and a copper sleeve (both electro-tin plated), and a tightly fitted insulation sleeve made from PVC or nylon.

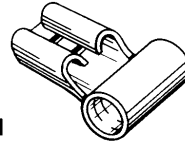
- Copper sleeve firmly grips wire insulation to protect against high vibration failures
- Color coded to standard commercial specifications
- Funnel entry for fast, easy wire insertion. Protects against wire strand hang-up, speeds production
- Offers utmost in quality, reliability and performance



#### FLAG SLIP-ON

A female slip-on with tongue opposed 90° to the barrel

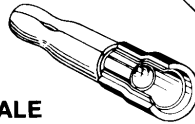
- Ideal for situation where space limitations exist
- Many designed primarily for automatic crimp machine application



#### MALE PLUGS

Available in NIT, NIT-IG, Funnel FIT and Funnel FIIG styles in .156" and .180" diameters (Funnel FIIG illustrated)

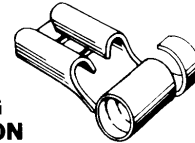
- Fits inside bullet receptacle of the same diameter
- Provides reliable in-line connection



#### FLAG-IG SLIP-ON

A female slip-on with tongue opposed 90° to the barrel, with addition of "U" extension to firmly grip the wire insulation

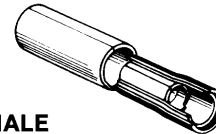
- Prevents insulation from unraveling
- Ideal for situation where space limitations exist
- Protects against high vibration failures



#### FEMALE RECEPTACLES

Available in NIT, NIT-IG, Funnel FIT, Funnel FIIG and Fully Insulated FIT Flared styles (Funnel Entry FIIG illustrated)

- Accepts bullet plug of same diameter—.156" and .180"
- Funnel FIT or Funnel FIIG plug used with Fully Insulated FIT Flared receptacle provides fully insulated in-line connection. Helps prevent shorting or flash-over when disconnected with power on.

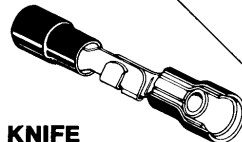


#### KNIFE DISCONNECTS

Available in NIT, MG\* and Funnel FIIG styles (Funnel FIIG pair illustrated)

- Always used in pairs, tongue is so shaped that two like parts are locked together, yet has advantage of a quick disconnect.
- Connection will not pull apart; in fact, the harder the pull, the tighter the connection

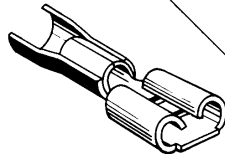
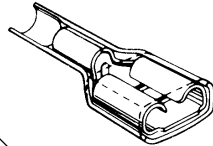
\*"MG" stands for the metal grip that is attached to the NIT. The metal-grip sleeve acts as an insulation support where vibration is a problem, but insulation is not needed.



This section contains three different kinds of quick disconnect terminals: slip-ons, bullet connectors and knife disconnects. The slip-on and bullet receptacle lines are available fully insulated. Female slip-ons and bullet receptacles have wire stops to prevent wire from entering the

tongue area. All terminals in this section are electro-tin plated to ensure corrosion resistance. Serrated "V" grooves in the barrel of each terminal firmly grip the wire to assure maximum holding power, and all insulated parts are color coded to standard commercial specifications.

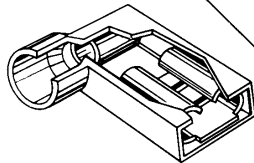
All the Quick Disconnect Terminals illustrated, are available tape mounted for fast, automatic crimping in the Hollingsworth H270 Crimping Machine.



**FEMALE SLIP-ONS**

Available in NIT, NIT-IG, Funnel FIT and Funnel FIIG styles (Funnel FIT illustrated)

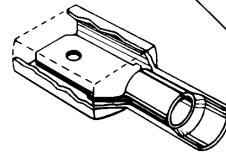
- Mates with Male Slip-On or Tab
- Provides quick and easy disconnection of wires
- Illustrated Funnel Entry eliminates wire strand hang-up and speeds production



**FISO FLAG SLIP-ON**

An assembly of a bare flag slip-on fully encased in vinyl insulation

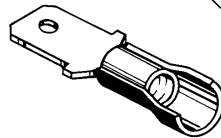
- Eliminates post-insulation
- This line of right angle parts provides design and packaging flexibility where space is a limitation and a fully insulated connection is called for
  - Helps prevent shorting or flash-over when disconnected with power on
  - Available in two popular wire sizes—22/18 and 16/14 AWG



**FULLY INSULATED NYLON COUPLERS**

A male and a female slip-on encased in nylon, that when connected form a fully insulated assembly

- Eliminates post-insulation
- Helps prevent shorting or flash-over when disconnected with power on
- Mating male and female available in three popular wire sizes -- 22/18, 16/14 and 12/10 AWG
  - The female housing fits entirely inside the male to form a fully insulated in-line splice



**MALE SLIP-ON**

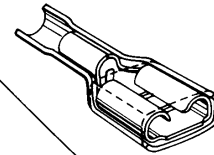
Available in NIT, NIT-IG, Funnel FIT and Funnel FIIG styles (Funnel FIT illustrated)

- Mates with Female Slip-Ons and Fully Insulated Female Slip-Ons (FISO)
- Provides quick and easy disconnection of wires
- Illustrated Funnel Entry speeds production by eliminating wire strand hang-up

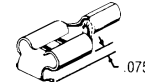
**FULLY INSULATED FEMALE SLIP-ONS (FISO)**

Available in FIT Flared and Funnel FIIG styles (Funnel FIT illustrated). An assembly of a bare roll-formed female slip-on, fully encased in vinyl

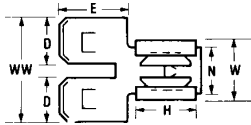
- Helps prevent shorting or flash-over when disconnected with power on
- Eliminates time consuming and costly post-insulation
- Use with Funnel FIT or Funnel FIIG male slip-on to provide fully insulated in-line connection



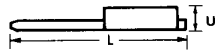
**PIGGY BACK SLIP-ONS**



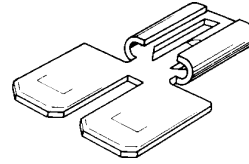
# Double Male Tab Single Female Slip-On



MATERIAL: BRASS



Thickness: .32"/.813mm

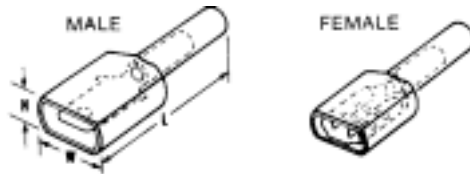


DIMENSIONS																
NIT	L	L	WW	WW	D	D	E	E	H	H	W	W	U	U	N	N
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm
41B†	.78	19.81	.572	14.53	.253	6.43	.315	8.00	.318	8.08	.324	8.23	.105	2.67	.250	6.35

41B is unplated; for electro-tin plated part, specify 43B.

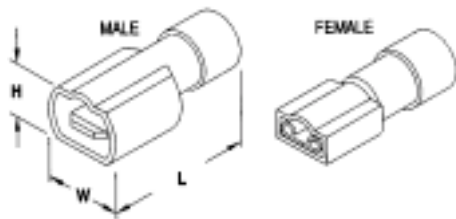
## 22/18 • 16/14 • 12/10 WIRE SIZE

# Fully Insulated Nylon Couplers

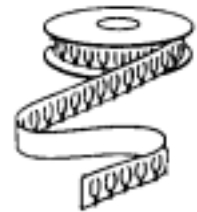


MATERIAL: BRASS

Type	Wire Size	NEMA Tab	W In.	W mm	L In.	L mm	H In.	H mm	Insul. Dia. In.	Insul. Dia. mm	Hand Tool	FIT	Mat. Thickness In.	Mat. Thickness mm	CMA Range
Male	22-18	.032 x .250	.48	12.19	1.05	26.67	.29	7.37	.155	3.94	H43	SO5078	.032	.813	509-2050
Female	22-18	.032 x .250	.40	10.16	.98	24.89	.22	5.59	.128	3.25	H13	SO5077	.018	.457	509-2050
Male	16-14	.032 x .250	.48	12.19	1.03	26.16	.30	7.62	.180	4.57	H43	SO5076	.032	.813	2050-5180
Female	16-14	.032 x .250	.40	10.16	.96	24.38	.22	5.59	.150	3.81	H13	SO5075	.018	.457	2050-5180



MATERIAL: BRASS



Type	Wire Size	NEMA Tab	W In.	W mm	L In.	L mm	H In.	H mm	Insul. Dia. In.	Insul. Dia. mm	FIT	CMA Range
Male	22-18	.032 x .250	.45	11.43	.94	23.88	.26	6.60	.165	4.19	SO6078	509-2050
Female	22-18	.032 x .250	.38	9.65	.87	22.10	.16	4.06	.165	4.19	SO6077	509-2050
Male	16-14	.032 x .250	.45	11.43	.94	23.88	.27	6.86	.165	4.19	SO6076	2050-5180
Female	16-14	.032 x .250	.38	9.65	.88	22.35	.17	4.32	.165	4.19	SO6075	2050-5180
Male	12-10	.032 x .250	.49	12.45	1.03	26.16	.29	7.37	.230	5.84	SO6080	5180-13,100
Female	12-10	.032 x .250	.41	10.41	.99	25.15	.19	4.83	.230	5.84	SO6081	5180-13,100

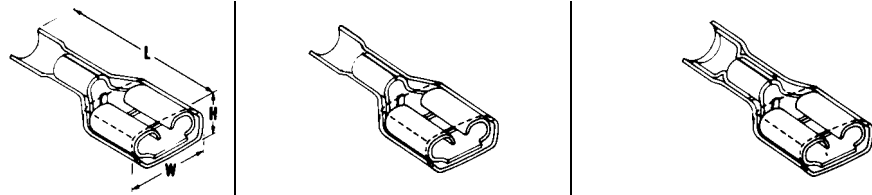
All items listed on this page (except those marked with dagger symbol), are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example: SO5078-T



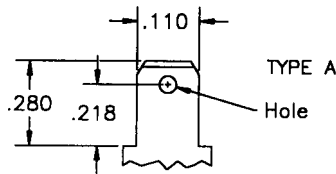
# 22/18 Fully Insulated Slip-Ons (FISO)

WIRE SIZE CMA Range 509-2050 • Barrel Inside Diameter .064"/1.63 mm - .110 Series  
.057"/1.45 mm - All Other Series

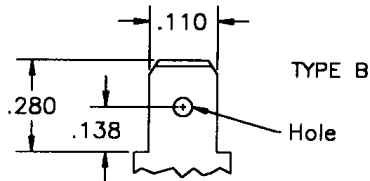
MATERIAL: BRASS  
THICKNESS: .012"/.035mm-.110 SERIES  
.018"/.457mm - ALL OTHERS



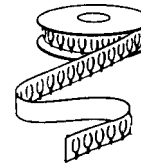
BASIC DIMENSIONS								INSULATED (RED VINYL)			
NEMA TAB	W In.	W mm	L In.	L mm	H In.	H mm	FITS TAB	INSUL. DIA. .125"/3.18mm		INSUL. DIA. .117"/2.97mm	
								FIT Flared	Hand Tool	Funnel FIIG	Hand Tool
.020 x.110	.21	5.33	.73	18.54	.17	4.32	A	SO5316SF	H8A4	XSO9770S	H13*
.020 x.110	.21	5.33	.73	18.54	.17	4.32	B	SO5317SF	H8A4	XSO9771S	H13*
.032 x.110	.21	5.33	.73	18.54	.17	4.32	A	SO5318SF	H8A4	XSO9772S	H13*
.032 x.110	.21	5.33	.73	18.54	.17	4.32	B	SO5319SF	H8A4	XSO9773S	H13*
.020 x.187	.32	8.13	.92	23.37	.19	4.83		SO5304F	H13	XSO9774	H43
.032 x.187	.32	8.13	.92	23.37	.19	4.83		SO5303F	H13	XSO9775	H43
.020 x.205	.32	8.13	.92	23.37	.19	4.83		SO5302F	H13	XSO9776	H43
.032 x.205	.32	8.13	.92	23.37	.19	4.83		SO5301F	H13	XSO9777	H43
.032 x.250	.37	9.40	.92	24.13	.21	5.33		SO5300F	H13	XSO9778	H43



Mating .110 series tab  
Dimensions type A



Mating .110 series tab  
Dimensions type B

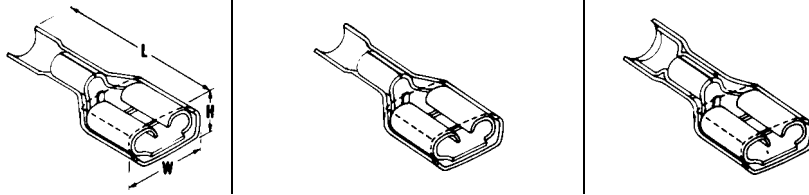


All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number Example: XSO9773s-t

\* Locator Blade 13-023 to be ordered in addition to Hand Tool.

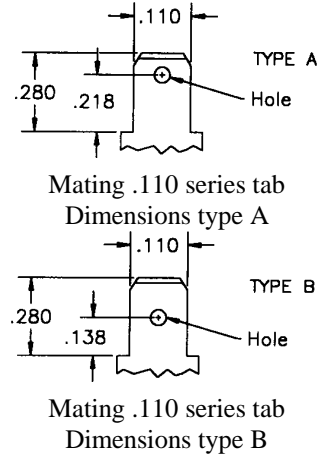
# 16/14 Fully Insulated Slip-Ons (FISO)

WIRE SIZE CMA Range 5180-13100 • Barrel Inside Diameter .090"/2.29 mm - .110 Series FISO FIT  
 .081"/2.06 mm - All Other Series FISO FIT  
 .079"/2.01 mm - All FISO FIIG



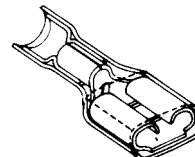
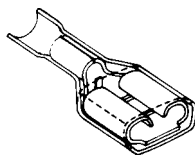
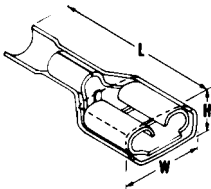
MATERIAL: BRASS  
 THICKNESS: .012"/.035mm-.110 SERIES  
 .018"/.457mm - ALL OTHERS

BASIC DIMENSIONS								INSULATED (BLUE VINYL)			
NEMA TAB	W In.	W mm	L In.	L mm	H In.	H mm	FITS TAB	INSUL. DIA. .160"/4.06mm		INSUL. DIA. .146"/3.71mm	
								FIT Flared	Hand Tool	Funnel FIIG	Hand Tool
.020 x.110	.21	5.33	.73	18.54	.20	5.08	A	SO5320SF	H8A4	XSO9779S	H13*
.020 x.110	.21	5.33	.73	18.54	.20	5.08	B	SO5321SF	H8A4	XSO9780S	H13*
.032 x.110	.21	5.33	.73	18.54	.20	5.08	A	SO5322SF	H8A4	XSO9781S	H13*
.032 x.110	.21	5.33	.73	18.54	.20	5.08	B			XSO9782S	H13*
.020 x.187	.32	8.13	.92	23.37	.20	5.08		SO5309F	H13	XSO9783	H43
.032 x.187	.32	8.13	.92	23.37	.20	5.08		SO5308F	H13	XSO9784	H43
.020 x.205	.32	8.13	.92	23.37	.20	5.08		SO5307F	H13	XSO9785	H43
.032 x.205	.32	8.13	.92	23.37	.20	5.08		SO5306F	H13	XSO9786	H43
.032 x.250	.38	9.65	.95	24.13	.22	5.59		SO5305F	H13	XSO9787	H43



# 16/14 Fully Insulated Slip-Ons (FISO)

WIRE SIZE CMA Range 5180-13100 • Barrel Inside Diameter • Barrel Inside Diameter .129"/3.27 mm



MATERIAL: BRASS  
 THICKNESS: .018"/.047 mm

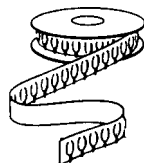
BASIC DIMENSIONS								INSULATED (YELLOW VINYL)			
NEMA TAB	W In.	W mm	L In.	L mm	H In.	H mm	FITS TAB	INSUL. DIA. .270"/6.86mm		INSUL. DIA. .239"/6.07mm	
								FIT Flared	Hand Tool	Funnel FIIG	Hand Tool
.032 x.250	.36	9.14	1.07	27.18	.33	8.38		SO5315F	H6EB	XSO9788	H6EB



12AWG Only



12AWG Only



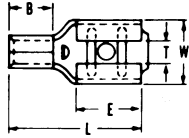
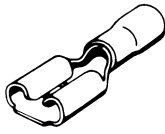
All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number  
 Example: XSO9773s-T

\* Locator Blade 13-023 to be ordered in addition to Hand Tool.

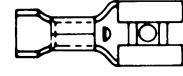
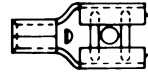
# 22/18 Female Slip-Ons CMA Range 509-2050

WIRE SIZE

Barrel Inside Diameter .064"/1.63 MM .110 Series • .057"/1.45 mm – All Others

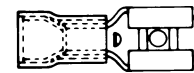
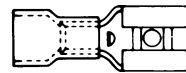
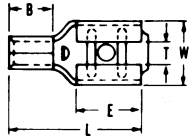
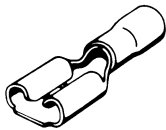
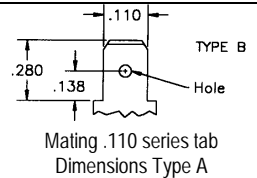
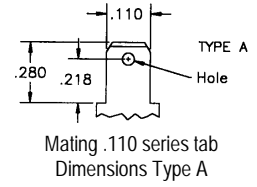


MATERIAL: BRASS



Thickness: .012" .305 mm - .110 and .125 SERIES  
.018" .457 mm - ALL OTHERS

BASIC DIMENSIONS										NON-INSULATED					
NEMA TAB	W In.	W mm	T In.	T mm	E In.	E mm	B In.	B mm	FITS TAB	NIT	L In.	L mm	NIT-IG	L In.	L mm
.020 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	A	SO70904S	.55	12.45	SO70931S	.63	16.00
.020 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	B	SO1120S	.55	12.45	SO1126S	.63	16.00
.032 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	A	SO70905S	.55	12.45	SO70932S	.63	16.00
.032 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	B	SO1130S	.55	12.45	SO1136S	.63	16.00
.020 x.187	.233	5.92	.026	.660	.250	6.35	.17	4.32		SO9604S	.57	14.48	SO9609S	.71	18.03
.032 x.187	.233	5.92	.026	.660	.250	6.35	.17	4.32		SO9602S	.57	14.48	SO9607S	.71	18.03
.020 x.205	.250	6.35	.026	.660	.250	6.35	.17	4.32		SO9603S	.57	14.48			
.032 x.205	.250	6.35	.026	.660	.250	6.35	.17	4.32		SO9601S	.57	14.48	SO9606S	.71	18.03
.032 x.250	.290	7.37	.065	1.65	.300	7.62	.17	4.32		SO9600S	.62	15.75	SO9605S	.76	19.30



BASIC DIMENSIONS										INSULATED (RED VINYL)				INSULATED (RED NYLON)			
NEMA TAB	W In.	W mm	T In.	T mm	E In.	E mm	B In.	B mm	FITS TAB	FIT Flared	INSUL. DIA. .125"/3.18mm			INSUL. DIA. .118"/3.00mm			
											L In.	L mm	Hand Tool	Funnel FIIG	L In.	L mm	Hand Tool
.020 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	A	SO70908SF	.78	19.81	H8A4	XSO70910SN	.78	19.81	H13*
.020 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	B	SO1121SF	.78	19.81	H8A4	XSO1122SN	.78	19.81	H13*
.032 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	A	SO70909SF	.78	19.81	H8A4	XSO70911SN	.78	19.81	H13*
.032 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	B	SO1131SF	.78	19.81	H8A4	XSO1132SN	.78	19.81	H13*
.020 x.187	.233	5.92	.026	.660	.250	6.35	.17	4.32		SO9619SF	.86	21.84	H13	XSO9624SN	.86	21.84	H43
.032 x.187	.233	5.92	.026	.660	.250	6.35	.17	4.32		SO9617SF	.86	21.84	H13	XSO9622SN	.86	21.84	H43
.020 x.205	.250	6.35	.026	.660	.250	6.35	.17	4.32		SO9618SF	.86	21.84	H13	XSO9623SN	.86	21.84	H43
.032 x.205	.250	6.35	.026	.660	.250	6.35	.17	4.32		SO9616SF	.86	21.84	H13	XSO9621SN	.86	21.84	H43
.032 x.250	.290	7.37	.065	1.65	.300	7.62	.17	4.32		SO9615SF	.91	23.11	H13	XSO9620SN	.91	23.11	H43

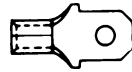
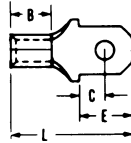
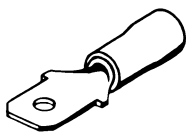


\* Locator Blade 13-023 to be ordered in addition to Hand Tool.

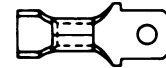
# 22/18 Male Slip-Ons CMA Range 509-2050

WIRE SIZE

Barrel Inside Diameter .020 Series -.053"/1.35 mm • .032 Series -.056"/1.42 mm



MATERIAL: BRASS

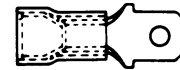
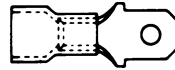
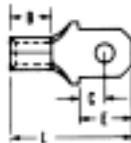


Thickness: .020"/1.508 mm  
.032"/1.813 mm

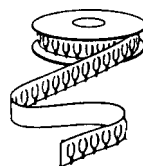
BASIC DIMENSIONS								NON-INSULATED						
NEMA TAB	C In.	C mm	E In.	E mm	B In.	B mm	FITS TAB	NIT	L In.	L mm	Hand Tool	NIT-IG	L In.	L mm
.020 x.110	.218	5.54	.280	7.11	.17	4.32	A	SO9419S	.58	14.73		SO9427S	.72	18.29
.020 x.110	.138	3.51	.280	7.11	.17	4.32	B	SO9418S <sup>†</sup>	.58	14.73		SO9426S <sup>†</sup>	.72	18.29
.020 x.187	.125	3.18	.250	6.35	.17	4.32		SO9416S	.55	13.97		SO9424S	.69	17.53
.032 x.187	.125	3.18	.250	6.35	.17	4.32		SO9104S	.62	15.75	H4A			
.032 x.187	.125	3.18	.250	6.35	.26	6.60		SO9104	.71	18.03	H4A			
.020 x.205	.125	3.18	.250	6.35	.17	4.32		SO9417S	.55	13.97		SO9425S	.69	17.53
.032 x.205	.125	3.18	.250	6.35	.17	4.32		SO9105S	.62	15.75	H4A			
.032 x.205	.125	3.18	.250	6.35	.26	6.60		SO9105	.71	18.03	H4A			
.032 x.250	.134	3.40	.307	7.80	.17	4.32		SO9106S *	.67	17.02	H4A			
.032 x.250	.134	3.40	.307	7.80	.26	6.60		SO9106 *	.76	19.30	H4A			



\* Not UL Listed



BASIC DIMENSIONS								INSULATED (RED VINYL)					INSULATED (RED NYLON)						
NEMA TAB	C In.	C mm	E In.	E mm	B In.	B mm	FITS TAB	Funnel FIT	Insul. Dia. In.	Insul. Dia. mm	L In.	L mm	Hand Tool	Funnel FIIG	Insul. Dia. In.	Insul. Dia. mm	L In.	L mm	Hand Tool
.020 x.110	.218	5.54	.280	7.11	.17	4.32	A	SO9447SF	.124	3.15	.86	21.84	H8A	XSO9453SN	.118	3.00	.85	21.59	H43
.020 x.110	.138	3.51	.280	7.11	.17	4.32	B	SO9446SF <sup>†</sup>	.124	3.15	.86	21.84	H8A	XSO9452SN <sup>†</sup>	.118	3.00	.85	21.59	H43
.020 x.187	.125	3.18	.250	6.35	.17	4.32		SO9444SF	.124	3.15	.83	21.08	H8A	XSO9450SN	.118	3.00	.82	20.83	H43
.032 x.187	.125	3.18	.250	6.35	.17	4.32		SO9110SF	.160	4.06	.90	22.86	H7B	XSO9115SN	.146	3.71	.88	22.35	H7B
.032 x.187	.125	3.18	.250	6.35	.26	6.60		SO9110F	.160	4.06	.97	24.64	H7B						
.020 x.205	.125	3.18	.250	6.35	.17	4.32		SO9445SF	.124	3.15	.83	21.08	H8A	XSO9451SN	.118	3.00	.82	20.83	H43
.032 x.205	.125	3.18	.250	6.35	.17	4.32		SO9112SF	.160	4.06	.90	22.86	H7B	XSO9116SN	.146	3.71	.88	22.35	H7B
.032 x.205	.125	3.18	.250	6.35	.26	6.60		SO9112F	.160	4.06	.97	24.64	H7B						
.032 x.250	.134	3.40	.307	7.80	.17	4.32		SO9113SF	.160	4.06	.95	24.13	H7B	XSO9117SN	.146	3.71	.96	24.38	H7B
.032 x.250	.134	3.40	.307	7.80	.26	6.60		SO9113F	.160	4.06	1.02	25.91	H7B						



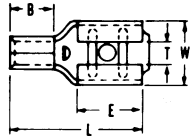
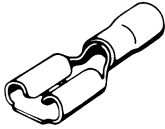
All items listed on this spread (except those marked with dagger symbol), are available tape mounted for Fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to Catalog number.

Example: SO9106S-T or XSO9117SN-T.

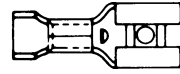
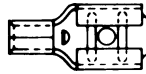
# 16/14 Female Slip-Ons CMA Range 2050-5180

WIRE SIZE

Barrel Inside Diameter .090"/2.29 mm .110 Series • .081"/2.06 mm – All Others

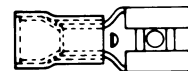
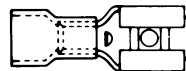
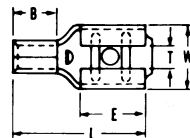
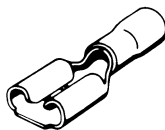


MATERIAL: BRASS



THICKNESS: .012" .305 mm - .110 & .125 SERIES  
.018" .457 mm - ALL OTHERS

BASIC DIMENSIONS										NON-INSULATED					
NEMA TAB	W In.	W mm	T In.	T mm	E In.	E mm	B In.	B mm	FITS TAB	NIT	L In.	L mm	NIT-IG	L In.	L mm
.020 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	A	SO70912S	.49	12.45	SO70573S	.63	16.00
.020 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	B	SO1137S	.49	12.45	SO70572S	.63	16.00
.032 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	A	SO70913S	.49	12.45	SO70577S	.63	16.00
.032 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	B	SO1144S	.49	12.45	SO70576S	.63	16.00
.020 x.187	.233	5.92	.026	.660	.250	6.35	.17	4.32		SO9704S	.57	14.48	SO9709S	.72	18.29
.032 x.187	.233	5.92	.026	.660	.250	6.35	.17	4.32		SO9702S	.57	14.48	SO9707S	.72	18.29
.020 x.205	.250	6.35	.026	.660	.250	6.35	.17	4.32		SO9703S	.57	14.48	SO9708S	.72	18.29
.032 x.205	.250	6.35	.026	.660	.250	6.35	.17	4.32		SO9701S	.57	14.48	SO9706S	.72	18.29
.032 x.250	.290	7.37	.065	1.65	.300	7.62	.17	4.32		SO9700S	.62	15.75	SO9705S	.77	19.56



BASIC DIMENSIONS										INSULATED (BLUE VINYL)				INSULATED (BLUE NYLON)			
NEMA TAB	W In.	W mm	T In.	T mm	E In.	E mm	B In.	B mm	FITS TAB	INSUL. DIA. .160"/4.06mm				INSUL. DIA. .140"/3.56mm			
										FIT Flared	L In.	L mm	Hand Tool	Funnel FIIG	L In.	L mm	Hand Tool
.020 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	A	SO70916SF	.78	19.81	H8A4	XSO70918SN	.78	19.81	H13*
.020 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	B	SO1125SF	.78	19.81	H8A4	XSO1139SN	.78	19.81	H13*
.032 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	A	SO70917SF	.78	19.81	H8A4	XSO70919SN	.78	19.81	H13*
.032 x.110	.145	3.68	.016	.406	.250	6.35	.17	4.32	B	SO1135SF	.78	19.81	H8A4	XSO1146SN	.78	19.81	H13*
.020 x.187	.233	5.92	.026	.660	.250	6.35	.17	4.32		SO9722SF	.86	21.84	H13	XSO9727SN	.86	21.84	H43
.032 x.187	.233	5.92	.026	.660	.250	6.35	.17	4.32		SO9720SF	.86	21.84	H13	XSO9725SN	.86	21.84	H43
.020 x.205	.250	6.35	.026	.660	.250	6.35	.17	4.32		SO9721SF †	.86	21.84	H13	XSO9726SN	.86	21.84	H43
.032 x.205	.250	6.35	.026	.660	.250	6.35	.17	4.32		SO9719SF	.86	21.84	H13	XSO9724SN	.86	21.84	H43
.032 x.250	.290	7.37	.065	1.65	.300	7.62	.17	4.32		SO9718SF	.91	23.11	H13	XSO9723SN	.91	23.11	H43

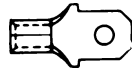
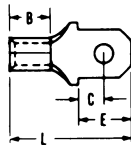
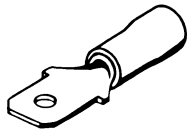


\* Locator Blade 13-023 to be ordered in addition to hand tool

# 16/14 male Slip-Ons CMA Range 2050-5180

WIRE SIZE

Barrel Inside Diameter .020 Series - .081"/2.06mm • .032 Series - .085"/2.16 mm

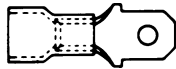
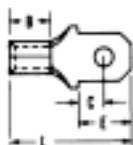


MATERIAL: BRASS

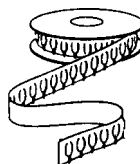


THICKNESS: .020"/.508 mm  
.032"/.813 mm

BASIC DIMENSIONS								NON-INSULATED							
NEMA TAB	C In.	C mm	E In.	E mm	B In.	B mm	FITS TAB	NIT	L In.	L mm	Hand Tool	NIT-IG	L In.	L mm	H270 Die
.020 x.110	.218	5.54	.280	7.11	.17	4.32	A	SO9353S	.58	14.73	H12	SO9363S	.72	18.29	27021A
.020 x.110	.138	3.51	.280	7.11	.17	4.32	B	SO9352S <sup>†</sup>	.58	14.73	H12	SO9362S <sup>†</sup>	.72	18.29	27021A
.020 x.187	.125	3.18	.250	6.35	.17	4.32		SO9350S	.55	13.97	H12	SO9360S	.69	17.53	27021A
.032 x.187	.125	3.18	.250	6.35	.17	4.32		SO9118S	.62	15.75	H4A				
.032 x.187	.125	3.18	.250	6.35	.26	6.60		SO9118	.71	18.03	H4A				
.020 x.205	.125	3.18	.250	6.35	.17	4.32		SO9351S	.55	13.97	H12	SO9361S	.69	17.53	27021A
.032 x.205	.125	3.18	.250	6.35	.17	4.32		SO9119S	.62	15.75	H4A				
.032 x.205	.125	3.18	.250	6.35	.26	6.60		SO9119	.71	18.03	H4A				
.032 x.250	.134	3.40	.307	7.80	.17	4.32		SO9004S	.67	17.02	H4A				
.032 x.250	.134	3.40	.307	7.80	.26	6.60		SO9003	.76	19.30	H4A				



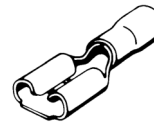
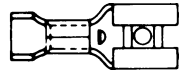
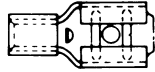
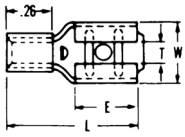
BASIC DIMENSIONS								INSULATED (BLUE VINYL)					INSULATED (BLUE NYLON)						
NEMA TAB	C In.	C mm	E In.	E mm	B In.	B mm	FITS TAB	Funnel FIT	Insul. In.	Dia mm	L In.	L mm	Hand Tool	Funnel FIIG	Insul. In.	Dia mm	L In.	L mm	Hand Tool
.020 x.110	.218	5.54	.280	7.11	.17	4.32	A	SO9383SF	.160	4.06	.87	22.10	H7B						
.020 x.110	.138	3.51	.280	7.11	.17	4.32	B	SO9382SF <sup>†</sup>	.160	4.06	.87	22.10	H7B						
.020 x.187	.125	3.18	.250	6.35	.17	4.32		SO9380SF	.160	4.06	.83	21.08	H7B	XSO9390SN	.146	3.71	.85	21.59	H43
.032 x.187	.125	3.18	.250	6.35	.17	4.32		SO9124SF	.195	4.95	.90	22.86	H7B	XSO9126SN	.178	4.52	.86	21.84	H7B
.032 x.187	.125	3.18	.250	6.35	.26	6.60		SO9124F	.195	4.95	.97	24.64	H7B						
.020 x.205	.125	3.18	.250	6.35	.17	4.32		SO9381SF	.160	4.06	.83	21.08	H7B	XSO9391SN	.146	3.71	.85	21.59	H43
.032 x.205	.125	3.18	.250	6.35	.17	4.32		SO9125SF	.195	4.95	.90	22.86	H7B	XSO9127SN	.178	4.52	.86	21.84	H7B
.032 x.205	.125	3.18	.250	6.35	.26	6.60		SO9125F	.195	4.95	1.03	26.16	H7B						
.032 x.250	.134	3.40	.307	7.80	.17	4.32		SO9014SF <sup>†</sup>	.195	4.95	.96	24.38	H7B	XSO9024SN	.178	4.52	.91	23.11	H7B
.032 x.250	.134	3.40	.307	7.80	.26	6.60		SO9013F	.198	5.03	1.09	27.69	H7B						



All items listed on this spread (except those marked with dagger symbol), are available tape mounted for Fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to Catalog number.  
Example: SO70912S-T or XSO70918SN-T.

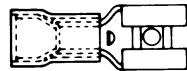
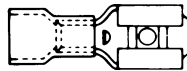
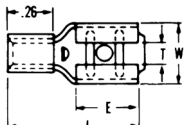
# 12/10 Female Slip-Ons

CMA Range 5180-13,100  
Barrel Inside Diameter .129"/ 3.27 mm



BASIC DIMENSIONS					NON-INSULATED											
NEMA TAB	W In.	W mm	T In.	T mm	NIT	E In.	E mm	L In.	L mm	Hand Tool	NIT-IG	E In.	E mm	L In.	L mm	
.020 x.187	.233	5.92	.026	.660	<b>SO9308</b>	.250	6.35	.69	17.53	H4A						
.032 x.187	.233	5.92	.026	.660	<b>SO9312</b>	.250	6.35	.69	17.53	H4A						
.032 x.250	.300	7.62	.065	1.65	<b>SO9300</b>	.300	7.62	.72	17.53	H4A	<b>SO9180</b>	.300	7.62	.89	22.61	
.032 x.250	.300	7.62	.065	1.65	<b>SO9176</b>	.300	7.62	.72	17.53	<b>27058</b>						

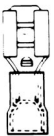
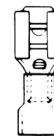
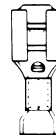
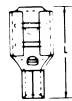
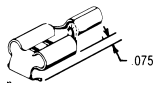
UL Listed for 12 AWG Only



BASIC DIMENSIONS					INSULATED (YELLOW VINYL) INSUL. DIA. .265"/6.73mm					INSULATED (YELLOW NYLON) INSUL. DIA. .239"/6.07mm					
NEMA TAB	W In.	W mm	T In.	T mm	Funnel FIT	E In.	E mm	L In.	L mm	Hand Tool	Funnel FIIG	E In.	E mm	L In.	L mm
.020 x.187	.233	5.92	.026	.660	<b>SO9309F</b>	.250	6.35	1.00	25.40	H6E	<b>XSO9310N</b>	.250	6.35	1.00	25.40
.032 x.187	.233	5.92	.026	.660	<b>SO9313F</b>	.250	6.35	1.00	25.40	H6E	<b>XSO9314N</b>	.250	6.35	1.00	25.40
.032 x.250	.300	7.62	.065	1.65	<b>SO9301F</b>	.300	7.62	1.08	25.40	H6EC	<b>XSO9302N</b>	.300	7.62	1.06	19.81
<b>Hand Tool</b>										<b>H6E</b>					
					*UL Listed for 12 AWG Only					*UL Listed for 12 AWG Only					

# 22/18 • 16/14 • 12/10 WIRE SIZE Piggy Back Slip-Ons

MATERIAL: BRASS  
THICKNESS: .016"/.406 mm



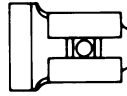
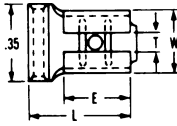
BASIC DIMENSIONS					NON-INSULATED					INSULATED (VINYL)				INSULATED (NYLON)						
Insul. Color	Barrel I.D. In./mm	CMA Range	Wire Range	NEMA Tab	Hand NIT	H270 L	H270 Tool	H270 Die	Hand NIT / I.G.	H270 L	H270 Tool	H270 Die	Funnel FIT	INS DIA	INS L	Hand Tool	Funnel FIIG	INS DIA	INS L	Hand Tool
Red	.061"/1.55	509-2050	22-18	.032 x .250	<b>SO73159S</b> †	.76	H12	27132	<b>SO73161S</b>	.76	H12	27133	<b>SO73163SF</b>	.125	.88	H13	<b>XSO73165SN</b>	.118	.88	H43
Blue	.085"/2.16	2050-5180	16-14	.032 x .250	<b>SO73170S</b>	.76	H12	27135	<b>SO73172S</b>	.76	H12	27136	<b>SO73174SF</b>	.160	.88	H13	<b>XSO73176SN</b>	.146	.88	H43
Yellow	.129"/3.27	5180-13,100	12-10	.032 x .250	<b>SO73181</b>	.76	H4A		<b>SO73183</b>	.76		27139	<b>SO73185F *</b>	.265	1.0	H6E	<b>XSO73187N *</b>	.227	1.0	H6E

\*UL Listed for 12 AWG Only

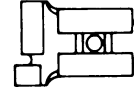
\*UL Listed for 12 AWG Only

# 22/18 • 16/14 • 12/10 Flag Slip-Ons

WIRE SIZE



MATERIAL: BRASS  
THICKNESS: .018" .457 mm



BASIC DIMENSIONS							NON-INSULATED									
Wire Range	CMA Range	NEMA Tab	W In.	W mm	T In.	T mm	NIT	E In.	E mm	L In.	L mm	NIT-IG	E In.	E mm	L In.	L mm
22-18	509-2050	.032 x .250	.296	7.52	.065	1.65						SO9405	.300	7.62	.57	14.48
16-14	2050-5180	.032 x .250	.296	7.52	.065	1.65						SO9410	.300	7.62	.59	14.99
16-14	2050-5180	.032 x .250	.296	7.52	.120	3.05						SO9411	.300	7.62	.59	14.99
12-10	5180-13,100	.032 x .250	.296	7.52	.065	1.65	SO9415 ★	.300	7.62	.60	15.54					
12-10	5180-13,100	.032 x .250	.296	7.52	.120	3.05	SO9413 ★	.300	7.62	.60	15.54					
Hand Tool							H4A3									



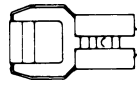
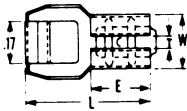
\* UL Listed  
For 12 AWG only



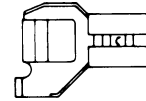
Notch specially for  
Bending applications

# 22/18 • 16/14 • 12/10 Flag Slip-Ons §

WIRE SIZE



MATERIAL: BRASS  
THICKNESS: .018" .457 mm



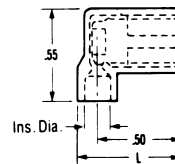
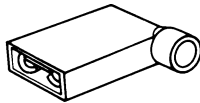
BASIC DIMENSIONS							NON-INSULATED									
Wire Range	CMA Range	NEMA Tab	W In.	W mm	T In.	T mm	NIT	E In.	E mm	L In.	L mm	NIT-IG	E In.	E mm	L In.	L mm
22-18	509-2050	.032 x .250	.300	7.62	.065	1.65	SO9478S †	.300	7.62	.53	13.46	SO9479S	.300	7.62	.53	13.46
16-14	2050-5180	.032 x .250	.300	7.62	.065	1.65	SO9487S	.300	7.62	.55	13.97	SO9488S	.300	7.62	.55	13.97
12-10	5180-13,100	.032 x .250	.300	7.62	.065	1.65	SO9489S † ★	.300	7.62	.68	17.27					



\* UL Listed  
for 12 AWG only



\* UL Listed  
for 12 AWG only



BASIC DIMENSIONS							FULLY-INSULATED								
Wire Range	CMA Range	NEMA Tab	W In.	W mm	T In.	T mm	FISO	Insul Dia. In.	Insul Dia. mm	L In.	L mm	Ins. Bbl. Dia. In.	Ins. Bbl. Dia. mm	Insul. Color	Hand Tool
22-18	509-2050	.032 x .250	.300	7.62	.065	1.65	SO5360SF	.160	4.06	.611	15.52	.057	1.45	Red Nylon	H46
16-14	2050-5180	.032 x .250	.300	7.62	.065	1.65	SO5363SF	.182	4.62	.625	15.88	.081	2.06	Blue Nylon	H47

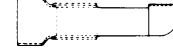
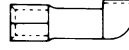
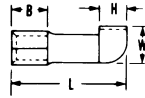
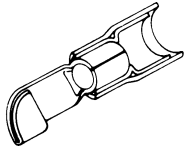


§ Designed primarily for Automatic Crimp Machine Application



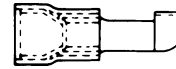
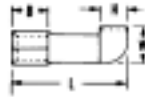
# 22/16 • 16/14 • 12/10 Knife Disconnects

WIRE SIZE



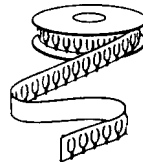
BASIC DIMENSIONS											NON-INSULATED							
Wire Range	CMA Range	Mat. Thickness In.	Mat. Thickness mm	Ins. Bbl. Dia. In.	Ins. Bbl. Dia. mm	H In.	H mm	W In.	W mm	B In.	B mm	NIT	L In.	L mm	MG	L In.	L mm	H270 Die
22-16	509-3260	.030	.762	.061	1.55	.15	3.81	.20	5.08	.17	4.32	K5910S	.63	16.00	K5913S	.80	20.32	27089
16-14	2050-5180	.032	.813	.085	2.16	.15	3.81	.20	5.08	.17	4.32	K5911S	.63	16.00	K5914S	.80	20.32	27092
12-10	5180-13,100	.040	1.02	.131	3.33	.22	5.59	.28	7.11	.27	6.86	K5912	.94	23.88	K5915	1.18	29.97	27095
Hand Tool												H4A		See End Column				

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BASIC DIMENSIONS											INSULATED (NYLON)							
Wire Range	CMA Range	Mat. Thickness In.	Mat. Thickness mm	Ins. Bbl. Dia. In.	Ins. Bbl. Dia. mm	H In.	H mm	W In.	W mm	B In.	B mm	Funnel FIIG	Insul. Dia. In.	Insul. Dia. mm	L In.	L mm	Insul. Color	Hand Tool
22-16	509-3260	.030	.762	.061	1.55	.15	3.81	.20	5.08	.17	4.32	XK5919SN	.146	3.71	.90	22.86	^Red	H7B
16-14	2050-5180	.032	.813	.085	2.16	.15	3.81	.20	5.08	.17	4.32	XK5920SN	.172	4.37	.90	22.86	Blue	H7B
12-10	5180-13,100	.040	1.02	.131	3.33	.22	5.59	.28	7.11	.27	6.86	XK5921N	.227	5.77	1.26	32.00	Yellow	H6E

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All items listed on this spread (except those marked with dagger symbol), are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping machine. To order on tape, add -T suffix to Catalog number.

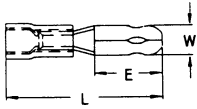
Example: K5910S-T or XK5921 N-T.

# 22/18 Male Plugs

WIRE SIZE

CMA Range 509-2050

Barrel Inside Diameter .057"/ 1.49 mm



BASIC DIMENSIONS				INSULATED (RED NYLON)		
				INSUL. DIA. .118"/3.00mm		
W	W	E	E	Funnel	L	L
In.	mm	In.	mm	FIIG	In.	mm
.156	3.96	.345	8.76	XMP9658SN	.90	22.86
.180	4.57	.447	11.35	XMP9659SN	.94	23.87
Hand Tool				H43		

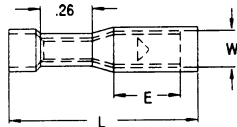


# 22/18 Receptacles

WIRE SIZE

CMA Range 509-2050

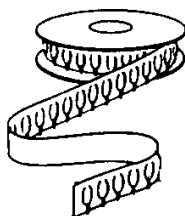
Barrel Inside Diameter .057"/ 1.55 mm



**MATERIAL:** BRASS

**Thickness:** .016"/406mm

BASIC DIMENSIONS						INSULATED (RED VINYL)		
						INSUL. DIA. .125"/3.18mm		
W	W	E	E	Male Plug	Male Plug	Fully Insulated	L	L
In.	mm	In.	mm	Dia. In.	Dia. mm	FIT Flared	In.	mm
.18	4.57	.345	8.76	.156	3.96	FP5332F	1.03	26.16
.21	5.33	.420	10.67	.180	4.57	FP5333F	1.08	27.43
H270 Die						27123		

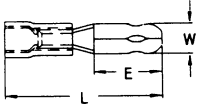


All items listed on this spread (except those Marked with dagger symbol), are available tape Mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example FP5332F-T

# 18/14 Male Plugs

CMA Range 1600-5180

Barrel Inside Diameter .081"/ 2.06 mm



MATERIAL: BRASS

THICKNESS: .018"/.457 mm

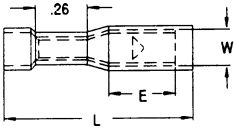
BASIC DIMENSIONS				INSULATED (BLUE NYLON)			
				INSUL. DIA. .146"/3.71 mm			
W	W	E	E	Funnel	L	L	
In.	mm	In.	mm	FIIG	In.	mm	
.156	3.96	.345	8.76	XMP9645SN	.92	23.37	
.180	4.57	.447	11.35	XMP9646SN	.97	24.64	
Hand Tool				H43			



# 18/14 Receptacles

CMA Range 1600-5180

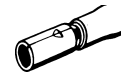
Barrel Inside Diameter .081"/ 2.06 mm



MATERIAL: BRASS

THICKNESS: .016"/.406mm

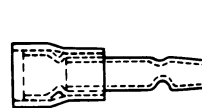
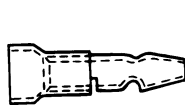
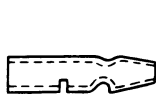
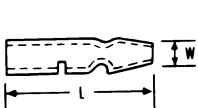
BASIC DIMENSIONS						INSULATED (BLUE VINYL)			
						INSUL. DIA. .160"/4.06mm			
W	W	E	E	Male Plug	Male Plug	Fully Insulated	L	L	
In.	mm	In.	mm	Dia. In.	Dia. mm	FIT Flared	In.	mm	
.18	4.57	.345	8.76	.156	3.96	FP5336F	1.03	26.16	
.21	5.33	.447	11.35	.180	4.57	FP5337F	1.08	27.43	
H270 Die						27121			



# 16/14 Male Plugs

CMA Range 2050-5180

Barrel Inside Diameter .081"/ 2.06 mm



MATERIAL: COPPER

THICKNESS: .032"/.813 mm

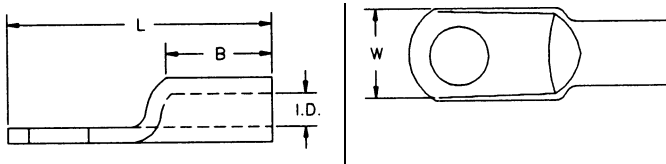
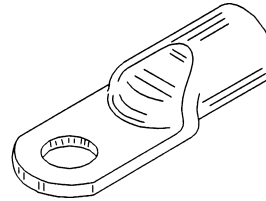
BASIC DIMENSIONS		NON-INSULATED			INSULATED (BLUE VINYL)			INSULATED (BLUE NYLON)		
					INSUL. DIA. .195"/4.95mm			INSUL. DIA. .178"/4.52mm		
W	W	NIT	L	L	Funnel	L	L	Funnel	L	L
In.	mm		In.	mm	FIT	In.	mm	FIIG	In.	mm
.156	3.96	MP4846	.640	16.26	MP4847F	1.00	25.40	XMP4848N	.91	23.11
Hand Tool		H4A			H7B			H7B		



# SECTION 4

## Tubular Compression for wire sizes 6 to 4/0 AWG

New from Hollingsworth - a series of seamless compression lugs designed for copper conductors in sizes 6AWG through 4/0 AWG. Made of high conductivity copper, the parts are electro-tin plated for long lasting corrosion resistance. Other quality features include chamfered ends for ease of conductor insertion; Conductor size is clearly marked on each piece for positive identification.
















### MATERIAL: SEAMLESS COPPER TUBULAR STOCK

		BASIC DIMENSIONS								
WIRE SIZE	STUD SIZE	NIT	W In.	W mm	L In.	L mm	B In.	B mm	I.D. In.	I.D. mm
6	1/4	TL3068	.438	11.13	1.27	32.29	.433	11.00	.235	5.97
6	5/16	TL3069	.609	15.47	1.41	35.81	.433	11.00	.235	5.97
6	3/8	TL3070	.609	15.47	1.41	35.81	.433	11.00	.235	5.97
6	1/2	TL3071	.766	19.46	1.55	39.37	.433	11.00	.235	5.97
4	1/4	TL3072	.531	13.49	1.50	38.10	.408	10.36	.286	7.26
4	5/16	TL3073	.531	13.49	1.50	38.10	.408	10.36	.286	7.26
4	3/8	TL3074	.625	15.88	1.55	39.37	.408	10.36	.286	7.26
2	1/4	TL3075	.609	15.47	1.62	41.15	.489	12.42	.336	8.53
2	3/8	TL3063	.609	15.47	1.62	41.15	.489	12.42	.336	8.53
1	1/4	TL3076	.672	17.07	1.72	43.69	.552	14.02	.360	9.14
1	5/16	TL3077	.672	17.07	1.72	43.69	.552	14.02	.360	9.14
1	3/8	TL3078	.672	17.07	1.72	43.69	.552	14.02	.360	9.14
1	1/2	TL3079	.672	17.07	1.72	43.69	.552	14.02	.360	9.14
1/0	3/8	TL3080	.734	18.67	1.84	46.74	.650	16.51	.407	10.34
1/0	1/2	TL3081	.734	18.67	1.84	46.74	.650	16.51	.407	10.34
2/0	3/8	TL3061	.813	20.65	2.06	52.32	.635	16.13	.461	11.71
2/0	1/2	TL3064	.813	20.65	2.06	52.32	.635	16.13	.461	11.71
3/0	3/8	TL3065	.906	23.01	2.17	55.12	.685	17.40	.511	12.98
3/0	1/2	TL3066	.906	23.01	2.17	55.12	.685	17.40	.511	12.98
4/0	3/8	TL3062	1.094	27.79	2.45	62.23	.761	19.33	.625	15.88
4/0	1/2	TL3067	1.094	27.79	2.45	62.23	.761	19.33	.625	15.88

# SECTION 5

## Miscellaneous Data and Information

### STUD SIZE CHART

		Diameter	
		Inches	mm
	#0 — .066	1.68	
	#2 — .093	2.36	
	#4 — .119	3.02	
	#6 — .148	3.76	
	#8 — .178	4.52	
	#10 — .198	5.03	
	1/4" — .265	6.73	
	5/16" — .326	8.28	
	3/8" — .390	9.91	
	7/16" — .454	11.53	
	1/2" — .518	13.16	
	5/8" — .656	16.66	
	3/4" — .779	19.79	

### DECIMAL EQUIVALENT CHART

1/64 . . . . .	.015625	33/64 . . . . .	.515625
1/32 . . . . .	.03125	17/32 . . . . .	.53125
3/64 . . . . .	.046875	35/64 . . . . .	.546875
1/16 . . . . .	.0625	9/16 . . . . .	.5625
5/64 . . . . .	.078125	37/64 . . . . .	.578125
3/32 . . . . .	.09375	19/32 . . . . .	.59375
7/64 . . . . .	.109375	39/64 . . . . .	.609375
1/8 . . . . .	.125	5/8 . . . . .	.625
9/64 . . . . .	.140625	41/64 . . . . .	.640625
5/32 . . . . .	.15625	21/32 . . . . .	.65625
11/64 . . . . .	.171875	43/64 . . . . .	.671875
3/16 . . . . .	.1875	11/16 . . . . .	.6875
13/64 . . . . .	.203125	45/64 . . . . .	.703125
7/32 . . . . .	.21875	23/32 . . . . .	.71875
15/64 . . . . .	.234375	47/64 . . . . .	.734375
1/4 . . . . .	.25	3/4 . . . . .	.75
17/64 . . . . .	.265625	49/64 . . . . .	.765625
9/32 . . . . .	.28125	25/32 . . . . .	.78125
19/64 . . . . .	.296875	51/64 . . . . .	.796875
5/16 . . . . .	.3125	13/16 . . . . .	.8125
21/64 . . . . .	.328125	53/64 . . . . .	.828125
11/32 . . . . .	.34375	27/32 . . . . .	.84375
23/64 . . . . .	.359375	55/64 . . . . .	.859375
3/8 . . . . .	.375	7/8 . . . . .	.875
25/64 . . . . .	.390625	57/64 . . . . .	.890625
13/32 . . . . .	.40625	29/32 . . . . .	.90625
27/64 . . . . .	.421875	59/64 . . . . .	.921875
7/16 . . . . .	.4375	15/16 . . . . .	.9375
29/64 . . . . .	.453125	61/64 . . . . .	.953125
15/32 . . . . .	.46875	31/32 . . . . .	.96875
31/64 . . . . .	.484375	63/64 . . . . .	.984375
1/2 . . . . .	.5	1 . . . . .	1

### WIRE GAGE CONVERSION

AWG	CMA	MM <sup>2</sup>
26-24	202 - 320	0.10 - 0.16
26-22	202 - 810	0.10 - 0.41
24-20	320 - 1290	0.16 - 0.65
22-18	509 - 2050	0.30 - 1.04
22-16	509 - 3260	0.30 - 1.65
20-16	1290 - 3260	0.65 - 1.65
18-14	1600 - 5180	0.81 - 2.62
16-14	2050 - 5180	1.04 - 2.62
14-12	3260 - 8230	1.65 - 4.17
12-10	5180 - 13,100	2.62 - 6.64
8	13,100 - 20,800	6.64 - 10.54
6	20,800 - 33,100	10.54 - 16.77
4	33,100 - 52,600	16.77 - 26.65
2	52,600 - 83,700	26.65 - 42.41
1/0	83,700 - 119,500	42.41 - 60.55
2/0	119,500 - 150,500	60.55 - 76.26
3/0	150,500 - 190,000	76.26 - 96.27
4/0	190,000 - 231,000	96.27 - 117.05
250 MCM	250,000	127
300 MCM	300,000	152
350 MCM	350,000	177
400 MCM	400,000	203
500 MCM	500,000	253

# SECTION 6

## High Temperature Terminals and Connectors For Wire Sizes 22 to 2 AWG

For high temperature applications; maximum operating  
Temperatures are 650°F or 900°F terminals are made of

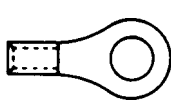
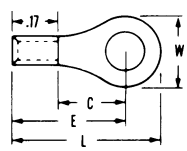
Pure copper (Slip-On is Brass), and are Nickel plated. 900°F  
Terminals are made of a Steel Alloy and are Nickel Plated.

### 22/16 WIRE SIZE

### Rings 650°F

CMA Range 509-3260

Barrel Inside Diameter .061"/ 1.55 mm



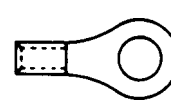
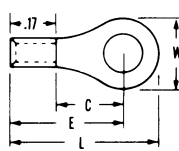
MATERIAL: NICKEL PLATED COPPER  
THICKNESS: .030"/.762 mm

### 16/14 WIRE SIZE

### Rings 650°F

CMA Range 2050-5180

Barrel Inside Diameter .085"/ 2.16 mm



MATERIAL: NICKEL PLATED COPPER  
THICKNESS: .032"/.813 mm

BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm
4	.22	5.99	.16	4.06	R4275SB	.34	8.84	.45	11.43
6	.25	6.35	.32	8.13	R4276SB	.50	12.70	.62	15.75
8	.31	7.87	.32	8.13	R4277SB	.50	12.70	.65	16.51
10	.31	7.87	.32	8.13	R4278SB	.50	12.70	.65	16.51
1/4	.41	11.94	.44	11.18	R4279SB	.61	15.49	.85	21.59



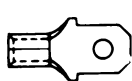
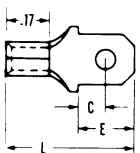
BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm
4	.25	6.35	.16	4.06	R4305SB	.33	8.38	.45	11.43
6	.31	7.87	.28	7.11	R4306SB	.45	11.43	.62	15.75
8	.31	7.87	.28	7.11	R4307SB	.45	11.43	.62	15.75
10	.31	7.87	.28	7.11	R4308SB	.45	11.43	.62	15.75
1/4	.46	11.68	.44	11.18	R4309SB	.61	15.49	.84	21.34
Hand Tool					H4A				



### 16/14 WIRE SIZE Male Slip-Ons 650°F

CMA Range 2050-5180

Barrel Inside Diameter .085"/ 2.16 mm

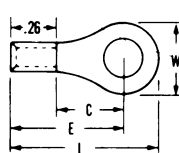


MATERIAL: NICKEL PLATED BRASS  
THICKNESS: .032"/.813mm

### 12/10 WIRE SIZE Rings 650°F

CMA Range 5180-13,100

Barrel Inside Diameter .129"/3.27 mm



MATERIAL: NICKEL PLATED COPPER  
THICKNESS: .040"/ 10.16mm

BASIC DIMENSIONS			NON-INSULATED				
NEWA TAB	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm
.032 x .187	.125	7.11	SO9017S	.250	6.35	0.62	15.75
.032 x .205	.125	7.11	SO9018S	.250	6.35	0.62	15.75
.032 x .205	.150	7.11	SO9019S	.312	7.92	0.67	17.02
Hand Tool			H4A				



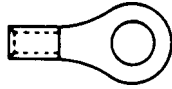
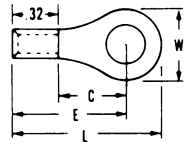
BASIC DIMENSIONS					NON-INSULATED					
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm	Hand Tool
6	.37	9.40	.28	7.11	R3428B	.56	14.22	.74	18.80	H4A
8	.37	9.40	.28	7.11	R3429B	.56	14.22	.74	18.80	H4A
10	.37	9.40	.28	7.11	R3430B	.56	14.22	.74	18.80	H4A
1/4	.52	13.21	.47	11.94	R3431B	.74	18.8	1.01	25.65	H4A
5/16	.52	13.21	.47	11.94	R3432B	.74	18.8	1.01	25.65	H4A
3/8	.59	14.99	.50	12.7	R3433B	.77	19.56	1.07	27.18	H4A



# 8 AWG Rings

WIRE SIZE **650°F**

CMA Range 13,100-20,800  
Barrel Inside Diameter .173"/ 4.39 mm



MATERIAL: NICKEL PLATED COPPER  
THICKNESS: .045"/1.14 mm

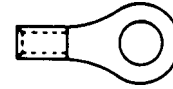
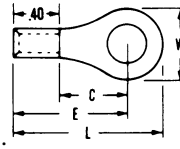
BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm
10	.38	9.65	.39	9.91	<b>R3472B</b>	.72	18.29	.90	22.86
1/4	.47	11.94	.39	9.91	<b>R3470B</b>	.72	18.29	.95	24.13
Hand Tool					H20				



# 6 AWG Rings

WIRE SIZE **650°F**

CMA Range 20,800-33,100  
Barrel Inside Diameter .238"/ 6.05 mm



MATERIAL: NICKEL PLATED COPPER  
THICKNESS: .057"/1.45 mm

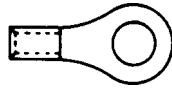
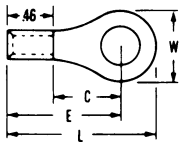
BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm
1/4	.47	11.94	.54	13.72	<b>R64663B</b>	.95	24.13	1.18	29.97
5/16	.63	16.00	.54	13.72	<b>R64661B</b>	.95	24.13	1.26	32.00
3/8	.63	16.00	.54	13.72	<b>R64662B</b>	.95	24.13	1.26	32.00
Hand Tool					H20				



# 4 AWG Rings

WIRE SIZE **650°F**

CMA Range 33,100-52,600  
Barrel Inside Diameter .287"/ 7.29 mm



MATERIAL: NICKEL PLATED COPPER  
THICKNESS: .068"/1.73 mm

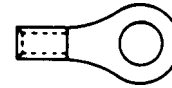
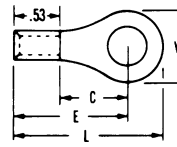
BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm
1/4	.56	14.22	.50	12.70	<b>R5023B</b>	.97	24.64	1.25	31.75
5/16	.66	16.76	.50	12.70	<b>R5018B</b>	.97	24.64	1.30	33.02
3/8	.66	16.76	.50	12.70	<b>R5019B</b>	.97	24.64	1.30	33.02
Hand Tool					H20				



# 2 AWG Rings

WIRE SIZE **650°F**

CMA Range 52,600-83,700  
Barrel Inside Diameter .355"/ 9.02 mm



MATERIAL: NICKEL PLATED COPPER  
THICKNESS: .078"/ 1.98 mm

BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm
1/4	.70	17.78	.60	15.24	<b>R8027B</b>	1.15	29.21	1.50	38.10
5/16	.70	17.78	.60	15.24	<b>R8028B</b>	1.15	29.21	1.50	38.10
3/8	.70	17.78	.60	15.24	<b>R8029B</b>	1.15	29.21	1.50	38.10
Hand Tool					H20				

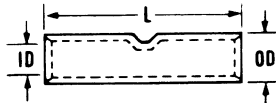


All items listed on this spread (except those marked with dagger symbol), are available tape mounted for Fast, automatic crimping with the Hollingsworth H20 Crimping Machine. To order on Tape, add-T suffix to Catalog number.

Example: R3472B-T

# 22/10 WIRE SIZE

## Butt Connectors 650°F



MATERIAL: NICKEL PLATED COPPER

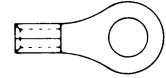
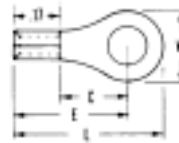
BASIC DIMENSIONS		NON-INSULATED						
Wire		NIT	I.D.	I.D.	O.D.	O.D.	L	L
Size	CMA Range	Brazed	In.	mm	In.	mm	In.	mm
22-16	509-3260	B1843B	.061	1.55	.136	3.45	.58	14.73
16-14	2050-5180	NB1846B	.065	2.16	.159	4.04	.58	14.73
12-10	5180-13,100	B1853B	.131	3.33	.221	5.61	.74	18.80
Hand Tool		H4A						



# 22/16 WIRE SIZE

## Rings 900°F

CMA Range 509-3260  
Barrel Inside Diameter .061"/1.55 mm



MATERIAL: NICKEL PLATED STEEL ALLOY  
THICKNESS: .030"/.762 mm

BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W In.	W mm	C In.	C mm	NIT	E In.	E mm	L In.	L mm
4	.25	6.35	.32	8.13	R4270S	.50	12.70	.62	15.75
6	.25	6.35	.32	8.13	R4271S	.50	12.70	.62	15.75
8	.31	7.87	.32	8.13	R4272S	.50	12.70	.65	16.51
10	.31	7.87	.32	8.13	R4273S	.50	12.70	.65	16.51
Hand Tool					H16HT				



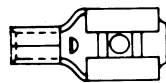
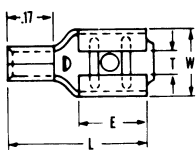
# 18/14 WIRE SIZE

CMA Range 1600-5180  
Barrel Inside Diameter .081"/2.06 mm

# 12/10 WIRE SIZE

CMA Range 5100-13,100  
Barrel Inside Diameter .130"/3.30 mm

## Female Slip-Ons 900°F



MATERIAL: NICKEL PLATED STEEL ALLOY  
THICKNESS: .018"/.457 mm

BASIC DIMENSIONS					NON-INSULATED				
NEMA TAB	W In.	W mm	T In.	T mm	NIT	E In.	E mm	L In.	L mm
.020x.187	.233	5.92	.026	.660	SO9750S †	.250	6.35	.59	14.99
.032x.187	.233	5.92	.026	.660	SO9751S †	.250	6.35	.59	14.99
.020x.205	.250	6.35	.026	.660	SO9752S †	.250	6.35	.59	14.99
.032x.205	.250	6.35	.026	.660	SO9753S †	.250	6.35	.59	14.99
.032x.250	.296	7.52	.065	1.65	SO9754S †	.300	7.62	.64	16.26
.032x.250	.300	7.62	.065	1.65	SO9214 ▲	.300	7.62	.72	18.29

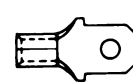
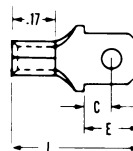


▲ 12/10 AWG

# 18/14 WIRE SIZE

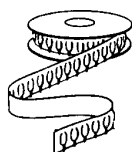
## Male Slip-Ons 900°F

CMA Range 52,600-83,700  
Barrel Inside Diameter .355"/9.02 mm



MATERIAL: NICKEL PLATED STEEL ALLOY  
THICKNESS: .032"/.813 mm

BASIC DIMENSIONS				NON-INSULATED			
NEMA TAB	C In.	C mm	NIT	E In.	E mm	L In.	L mm
.032x.187	.125	3.18	SO9012S †	.250	6.35	.62	15.75
.020x.205	.134	3.18	SO9015S †	.250	6.35	.62	15.75
.032x.205	.134	3.40	SO9016S †	.312	7.92	.67	17.02
Hand Tool				H16HT			



All items listed on this spread (except those marked With dagger symbol), are available tape mounted for Fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on Tape, add-T suffix to Catalog number.

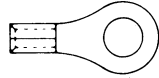
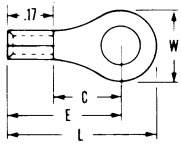
Example: B1843B-T



# 16/14 WIRE SIZE

## Rings 900°F

CMA Range 2050-5180  
Barrel Inside Diameter .085"/ 2.16 mm



MATERIAL: NICKEL PLATED STEEL ALLOY  
THICKNESS: .032"/.813 mm

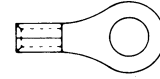
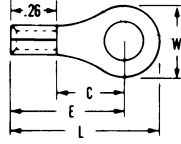
BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W	W	C	C	NIT	E	E	L	L
In.	mm	mm	In.	mm		In.	mm	In.	mm
4	.31	7.87	.28	7.11	R4300S	.46	11.68	.62	15.75
6	.31	7.87	.28	7.11	R4301S	.46	11.68	.62	15.75
8	.31	7.87	.28	7.11	R4302S	.46	11.68	.62	15.75
10	.31	7.87	.28	7.11	R4303S	.46	11.68	.62	15.75
Hand Tool					H16HT				



# 12/10 WIRE SIZE

## Rings 900°F

CMA Range 5180-13,100  
Barrel Inside Diameter .129"/ 3.27 mm



MATERIAL: NICKEL PLATED STEEL ALLOY  
THICKNESS: .040"/1.02 mm

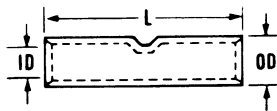
BASIC DIMENSIONS					NON-INSULATED				
Stud Size	W	W	C	C	NIT	E	E	L	L
In.	mm	mm	In.	mm		In.	mm	In.	mm
4	.37	9.40	.28	7.11	R3420	.56	14.22	.74	18.80
6	.37	9.40	.28	7.11	R3421	.56	14.22	.74	18.80
8	.37	9.40	.28	7.11	R3422	.56	14.22	.74	18.80
10	.37	9.40	.28	7.11	R3423	.56	14.22	.74	18.80
1/4	.52	13.21	.47	11.94	R3424	.74	18.80	1.00	25.40
5/16	.52	13.21	.47	11.94	R3425	.74	18.80	1.00	25.40
3/8	.59	14.99	.50	12.70	R3426	.77	19.56	1.06	26.92
Hand Tool					H16HT				



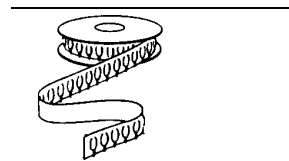
# 22/10 WIRE SIZE

## Butt Connectors

### 900°F



MATERIAL: NICKEL PLATED STEEL ALLOY



NON-INSULATED								
Wire Range	CMA Range	NIT	ID	ID	OD	OD	L	L
			In.	mm	In.	mm	In.	mm
22-16	509-3260	B1842	.061	1.55	.136	3.45	.58	14.73
16-14	2050-5180	B1845	.085	2.16	.159	4.04	.58	14.73
12-10	5180-13,100	B1852	.131	3.33	.221	5.61	.74	18.80
Hand Tool		H16HT						



All items listed on this page are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add-T suffix to catalog number. Example: 4300s-T

# SECTION 7



## Terminals / Splices for Wire Sizes 8 AWG to 250 MCM

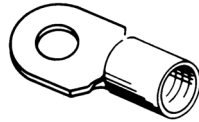
All terminals in this section are made from pure copper for highest conductivity. They are electro-tin plated to assure corrosion resistance. Serrated "V" grooves in the barrel of

Each terminal firmly grip the wire to assure maximum holding power. Insulation is colored to standard commercial specifications

### NIT BRAZED Non-Insulated Terminal

Consists of a bare terminal with a smooth, silver alloy brazed barrel

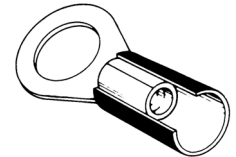
- Chamfered end of barrel affords fast and easy insertion of wire
- Brazed barrel can be crimped anywhere (even on seam) without splitting
- Some butt connectors and parallel splices are made from seamless tubular stock and offer the same advantages as brazed barrel parts. These parts are indicated by an  $\oplus$



### FIT Fixed Insulated Terminal

An assembly of a bare terminal with tightly fitting insulating sleeve made of PVC or nylon

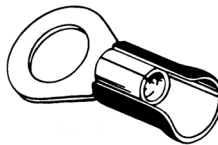
- Offers excellent insulating qualities
- Resists minor vibrations
- Insulation color coded to standard commercial specifications



### FIT FLARED Fixed Insulated Terminal- Flared Insulation

An assembly of a bare terminal with a tightly fitted flared insulating sleeve made from PVC

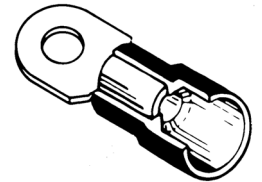
- Flared insulation will accept heavily insulated wire
- Resists minor vibrations
- Offers excellent insulating qualities
- Insulation color coded to standard commercial specifications



### FUNNEL FIT Fixed Insulated Terminal- Funnel Entry

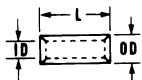
An assembly of a brazed terminal with a tightly fitted nylon insulating sleeve

- Funnel entry barrel facilitates wire entry
- Resists minor vibrations
- Prevents insulation unraveling
- Offers excellent insulating qualities
- Insulation color coded to standard commercial specifications

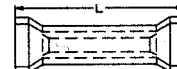
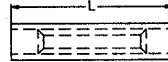
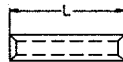


## 8 – 3/0 AWG Parallels

WIRE SIZE



MATERIAL: SEAMLESS COPPER TUBULAR STOCK



BASIC DIMENSIONS						NON-INSULATED			INSULATED (VINYL)									
Wire Size	CMA Range	I.D. In.	I.D. mm	O.D. In.	O.D. mm	NIT	L In.	L mm	Hand Tool	FIT	Insul. Dia. In.	Insul. Dia. mm	FIT Flared	Insul. Dia. In.	Insul. Dia. mm	L In.	L mm	Insul. Color
8	13,100-20,800	.19	4.83	.28	7.11	P1100 $\oplus$	.38	9.65	H20	P1110 $\oplus$	.27	6.86				1.05	26.67	Red
6	20,800-33,100	.26	6.60	.37	9.40	P1200 $\oplus$	.46	11.68	H20	P1210 $\oplus$	.35	8.89	P1210F $\oplus$	.430	10.92	1.19	30.23	Blue
4	33,100-52,600	.31	7.87	.43	10.92	P1300 $\oplus$	.54	13.72	H20	P1310 $\oplus$	.42	10.67	P1310F $\oplus$	.515	13.08	1.41	35.81	Yellow
1/0	83,700-119,500	.45	11.43	.57	14.48	P1500 $\bullet * \oplus$	.74	18.80										
2/0	119,500-150,500	.51	12.95	.63	16.00	P1600 $\bullet * \oplus$	.74	18.80										
3/0	150,500-190,000	.56	14.22	.69	17.53	P1700 $\bullet * \oplus$	.77	19.56										
Hand Tool						See Above			H20				H20					

• \* Not U L or CSA listed

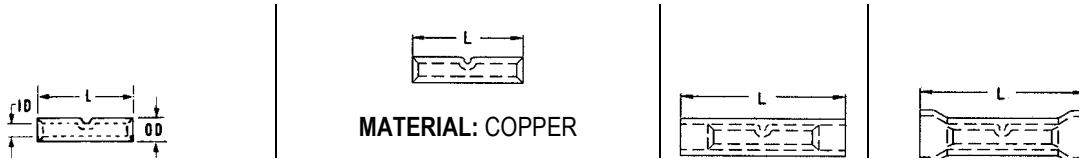


N ★



# 8 - 1/0 AWG Butt Connectors

WIRE SIZE



MATERIAL: COPPER

BASIC DIMENSIONS						NON-INSULATED					INSULATED (VINYL)								
Wire Size	CMA Range	I.D. In.	I.D. mm	O.D. In.	O.D. mm	NIT	NIT Brazed	L In.	L mm	Hand Tool	FIT	Insul. Dia. In.	Insul. Dia. mm	FIT Flared	Insul. Dia. In.	Insul. Dia. mm	L In.	L mm	Insul. Color
8	13,100-20,800	.17	4.32	.28	7.11		<b>B0100B</b>	.77	19.56	H20	<b>B0110B</b>	.27	6.86	<b>B0110BF</b>	.31	7.87	1.45	36.83	Red
6	20,800-33,100	.23	5.84	.36	9.14		<b>B0200B</b>	1.02	25.91	H20	<b>B0210B</b>	.35	8.89	<b>B0210BF</b>	.43	10.92	1.86	47.24	Blue
4	33,100-52,600	.31	7.87	.43	10.92	<b>B0300 c</b>		1.20	30.48	H20	<b>B0310 d ^</b>	.42	10.67	<b>B0310F d ^</b>	.51	13.08	2.03	51.56	Yellow
2	52,600-83,700	.39	9.91	.53	13.46	<b>B0401 ^</b>		1.37	34.80	H20	<b>B0411 d ^</b>	.51	12.95	<b>B0411F d ^</b>	.65	16.51	2.38	60.45	Red
1/0	83,700-119,500	.44	11.18	.60	15.24	<b>B0500 d ^</b>		1.42	36.07										
Hand Tool										See Above	H20			H20					

\* • Not UL or CSA listed

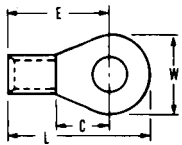


C Made from seamless tubular stock.

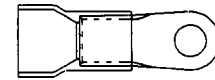
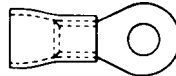
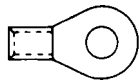


## 8 Rings

CMA Range 13,100/20,800  
Barrel Inside diameter .173"/4.39 MM



MATERIAL: COPPER  
THICKNESS: .045"/1.14 MM



N\* Items on this spread are also available in nylon. To order, add N suffix to catalog number. Example: B0110BN

All items listed on this spread (except those marked with dagger symbol), are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Example: B0300-T or B0110BN-T

BASIC DIMENSIONS					NON-INSULATED					INSULATED (RED VINYL)					INSULATED (RED NYLON)					
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm	INSULATION DIAMETER .265"/6.73mm				INSUL. DIA. .315"/8.0mm		INSULATION DIAMETER .315"/8.00mm				
										FIT	E In.	E mm	L In.	L mm	Fit Flared	Funnel FIT	E In.	E mm	L In.	L mm
8	.38	9.65	.39	9.91	<b>R3499B</b>	.72	18.29	.90	22.86	<b>R3503B</b>	1.04	26.42	1.23	31.24	<b>R3503BF</b>	<b>R3503BFN</b>	1.16	29.46	1.35	34.29
8	.47	11.94	.39	9.91	<b>R2996B</b>	.72	18.29	.95	24.13	<b>R3030B</b>	1.04	26.42	1.28	32.51	<b>R3030BF</b>	<b>R3030BFN</b>	1.16	29.46	1.39	35.31
10	.38	9.65	.39	9.91	<b>R3500B</b>	.72	18.29	.90	22.86	<b>R3504B</b>	1.04	26.42	1.23	31.24	<b>R3504BF</b>	<b>R3504BFN</b>	1.16	29.46	1.35	34.29
10	.47	11.94	.39	9.91	<b>R3460B</b>	.72	18.29	.95	24.13	<b>R3031B</b>	1.04	26.42	1.28	32.51	<b>R3031BF</b>	<b>R3031BFN</b>	1.16	29.46	1.39	35.31
10	.59	14.99	.57	14.48	<b>R3445B</b>	.91	23.11	1.20	30.48	<b>R3027B</b>	1.23	31.24	1.53	38.86	<b>R3027BF</b>	<b>R3027BFN</b>	1.34	34.04	1.63	41.40
1/4	.38	9.65	.39	9.91	<b>R3501B</b>	.72	18.29	.90	22.86	<b>R3502B</b>	1.04	26.42	1.23	31.24	<b>R3502BF</b>	<b>R3502BFN</b>	1.16	29.46	1.35	34.29
1/4	.47	11.94	.39	9.91	<b>R3461B</b>	.72	18.29	.95	24.13	<b>R3032B</b>	1.04	26.42	1.28	32.51	<b>R3032BF</b>	<b>R3032BFN</b>	1.16	29.46	1.39	35.31
1/4	.59	14.99	.57	14.48	<b>R3444B ^</b>	.91	23.11	1.20	30.48	<b>R3028B</b>	1.23	31.24	1.53	38.86	<b>R3028BF</b>	<b>R3028BFN</b>	1.34	34.04	1.63	41.40
5/16	.59	14.99	.57	14.48	<b>R3462B</b>	.91	23.11	1.20	30.48	<b>R3033B</b>	1.23	31.24	1.53	38.86	<b>R3033BF</b>	<b>R3033BFN</b>	1.34	34.04	1.63	41.40
3/8	.59	14.99	.57	14.48	<b>R3463B</b>	.91	23.11	1.20	30.48	<b>R3034B</b>	1.23	31.24	1.53	38.86	<b>R3034BF</b>	<b>R3034BFN</b>	1.34	34.04	1.63	41.40
3/8	.88	22.35	1.00	25.40	<b>R3491B ^</b>	1.33	33.78	1.76	44.70	<b>R3043B ^</b>	1.65	41.91	2.09	53.09	<b>R3043BF ^</b>	<b>R3043BFN ^</b>	1.77	44.96	2.21	56.13
1/2	.88	22.35	1.00	25.40	<b>R3492B ^</b>	1.33	33.78	1.76	44.70	<b>R3042B ^</b>	1.65	41.91	2.09	53.09	<b>R3042BF ^</b>	<b>R3042BFN ^</b>	1.77	44.96	2.21	56.13
1/2	1.25	31.75	1.00	25.40	<b>R3494B ^</b>	1.33	33.78	1.95	49.53	<b>R3039B ^</b>	1.65	41.91	2.28	57.91	<b>R3039BF ^</b>	<b>R3039BFN ^</b>	1.77	44.96	2.39	60.71
5/8	.88	22.35	1.00	25.40	<b>R3493B ^</b>	1.33	33.78	1.76	44.70	<b>R3044B ^</b>	1.65	41.91	2.09	53.09	<b>R3044BF ^</b>	<b>R3044BFN ^</b>	1.77	44.96	2.21	56.13
5/8	1.25	31.75	1.00	25.40	<b>R3495B ^</b>	1.33	33.78	1.95	49.53	<b>R3040B ^</b>	1.65	41.91	2.28	57.91	<b>R3040BF ^</b>	<b>R3040BFN ^</b>	1.77	44.96	2.39	60.71
3/4	1.25	31.75	1.00	25.40	<b>R3496B ^</b>	1.33	33.78	1.95	49.53	<b>R3041B ^</b>	1.65	41.91	2.28	57.91	<b>R3041BF ^</b>	<b>R3041BFN ^</b>	1.77	44.96	2.39	60.71
Hand Tool					H20					H20				H20						

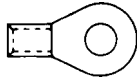
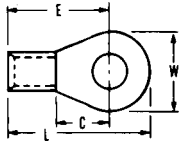


# 6 Rings

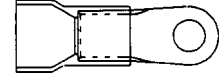
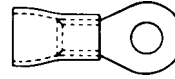
WIRE SIZE

CMA Range 20,800-33,100  
Barrel Inside Diameter .238"/ 6.05 mm

N\* Item listed on this Page are available in nylon. To order, add N suffix to Catalog number. Example: R4001BN



MATERIAL: .COPPER  
THICKNESS: .057"/1.45 MM



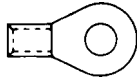
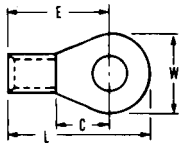
BASIC DIMENSIONS					NON-INSULATED				INSULATED (BLUE VINYL)				INSULATED (BLUE NYLON)							
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm	INSULATION DIAMETER .350"/8.89mm				INS. DIA. .430"/10.92		INSULATION DIAMETER .430"/10.92mm				
										FIT	E In.	E mm	L In.	L mm	Fit Flared	Funnel FIT	E In.	E mm	L In.	L mm
10	.47	11.94	.54	13.72	R64641B	.95	24.13	1.18	29.97	R4001B	1.38	35.05	1.62	41.15	R4001BF	R4001BFN	1.51	38.35	1.74	44.2
1/4	.47	11.94	.54	13.72	R64642B	.95	24.13	1.18	29.97	R4002B	1.38	35.05	1.62	41.15	R4002BF	R4002BFN	1.51	38.35	1.74	44.2
1/4	.63	16.00	.54	13.72	R64651B	.95	24.13	1.26	32.00	R4010B	1.38	35.05	1.70	43.18	R4010BF	R4010BFN	1.47	37.34	1.79	45.4
5/16	.63	16.00	.54	13.72	R64643B	.95	24.13	1.26	32.00	R4003B	1.38	35.05	1.70	43.18	R4003BF	R4003BFN	1.51	38.35	1.82	46.2
3/8	.63	16.00	.54	13.72	R64644B	.95	24.13	1.26	32.00	R4004B	1.38	35.05	1.70	43.18	R4004BF	R4004BFN	1.47	37.34	1.79	45.4
7/16	.63	16.00	.54	13.72	R64645B	.95	24.13	1.26	32.00	R4005B	1.38	35.05	1.70	43.18	R4005BF	R4005BFN	1.47	37.34	1.79	45.4
1/2	.88	22.35	1.00	25.40	R64654B ^	1.41	35.81	1.85	46.99	R4007B ^	1.85	46.99	2.28	57.91	R4007BF ^	R4007BFN ^	1.94	49.28	2.37	60.2
5/8	.88	22.35	1.00	25.40	R64655B ^	1.41	35.81	1.85	46.99	R4008B ^	1.85	46.99	2.28	57.91	R4008BF ^	R4008BFN ^	1.94	49.28	2.37	60.2
Hand Tool					H20				H20				H20		H20					



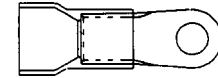
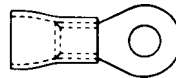
# 4 Rings

WIRE SIZE

CMA Range 33,100-52,600  
Barrel Inside Diameter .287"/ 7.29 mm



MATERIAL: .COPPER



All items listed on this page (except those marked with dagger symbol), are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number Example R64641B-T or R4001BN-T

BASIC DIMENSIONS					NON-INSULATED				INSULATED (YELLOW VINYL)				INSULATED (YELLOW NYLON)							
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm	INSULATION DIAMETER .420"/10.66mm				INS. DIA. .515"/13.08		INSULATION DIAMETER .515"/13.08mm				
										FIT	E In.	E mm	L In.	L mm	Fit Flared	Funnel FIT	E In.	E mm	L In.	L mm
10	.56	14.22	.50	12.70	R5000B	.97	24.64	1.25	31.35	R5100B	1.47	37.34	1.75	44.45	R5100BF	R5100BFN	1.51	38.35	1.79	45.47
10	.66	16.76	.50	12.70	R5013B	.97	24.64	1.30	33.02	R5128B	1.48	37.59	1.81	45.97	R5128BF	R5128BFN	1.51	38.35	1.84	46.74
1/4	.56	14.22	.50	12.70	R5001B	.97	24.64	1.24	31.50	R5101B	1.47	37.34	1.75	44.45	R5101BF	R5101BFN	1.51	38.35	1.79	45.47
1/4	.66	16.76	.50	12.70	R5006B	.97	24.64	1.30	33.02	R5127B	1.48	37.59	1.81	45.97	R5127BF	R5127BFN	1.51	38.35	1.84	46.74
5/16	.66	16.76	.50	12.70	R5002B	.97	24.64	1.30	33.02	R5102B	1.48	37.59	1.81	45.97	R5102BF	R5102BFN	1.51	38.35	1.84	46.74
3/8	.66	16.76	.50	12.70	R5003B	.97	24.64	1.30	33.02	R5103B	1.48	37.59	1.81	45.97	R5103BF	R5103BFN	1.51	38.35	1.84	46.74
3/8	.88	22.35	1.00	25.40	R5028B ^	1.46	37.08	1.90	48.26	R5138B ^	1.98	50.29	2.41	61.21	R5138BF ^	R5138BFN ^	2.01	51.05	2.45	62.23
7/16	.66	16.76	.50	12.70	R5004B	.97	24.64	1.30	33.02	R5104B	1.48	37.59	1.81	45.97	R5104BF	R5104BFN	1.51	38.35	1.84	46.74
1/2	.88	22.35	1.00	25.40	R5007B ^	1.46	37.08	1.90	48.26	R5122B ^	1.98	50.29	2.41	61.21	R5122BF ^	R5122BFN ^	2.01	51.05	2.45	62.23
1/2	1.25	31.75	1.00	25.40	R5012B ^	1.46	37.08	2.10	53.34	R5126B ^	1.98	50.29	2.60	66.04	R5126BF ^	R5126BFN ^	2.01	51.05	2.64	67.06
5/8	.88	22.35	1.00	25.40	R5030B ^	1.46	37.08	1.90	48.26	R5123B ^	1.98	50.29	2.41	61.21	R5123BF ^	R5123BFN ^	2.01	51.05	2.45	62.23
5/8	1.25	31.75	1.00	25.40	R5010B ^	1.46	37.08	2.10	53.34	R5124B ^	1.98	50.29	2.60	66.04	R5124BF ^	R5124BFN ^	2.01	51.05	2.64	67.06
3/4	1.25	31.75	1.00	25.40	R5011B ^	1.46	37.08	2.10	53.34	R5125B ^	1.98	50.29	2.60	66.04	R5125BF ^	R5125BFN ^	2.01	51.05	2.64	67.06
Hand Tool					H20				H20				H20		H20					

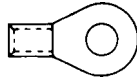
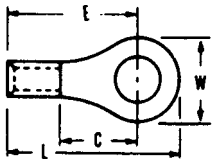


# 2 Rings

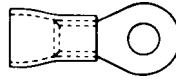
CMA Range 52,600-83,700

Barrel Inside Diameter .135"/ 9.02 mm

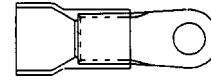
WIRE  
SIZE



MATERIAL: COPPER



Thickness: .078"/1.98 mm



BASIC DIMENSIONS					NON-INSULATED					INSULATED (RED VINYL)					INSULATED (RED NYLON)					
										INSULATION DIAMETER .517"/13.13mm					INS. DIA. .650"/16.51					
Stud Size	W In.	W mm	C In.	C mm	NIT Brazed	E In.	E mm	L In.	L mm	FIT	E In.	E mm	L In.	L mm	Fit Flared	Funnel FIT	E In.	E mm	L In.	L mm
10	.60	15.24	.60	15.24	R7999B	1.15	29.21	1.45	36.83	R7998B	1.67	42.42	1.97	50.04	R7998BF	R7998BFN	1.78	45.21	2.08	52.83
10	.81	20.57	.60	15.24	R7994B	1.15	29.21	1.55	39.37	R7995B	1.67	42.42	2.07	52.58	R7995BF	R7995BFN	1.78	45.21	2.18	55.37
1/4	.60	15.24	.60	15.24	R8000B	1.15	29.21	1.45	36.83	R8100B	1.67	42.42	1.97	50.04	R8100BF	R8100BFN	1.78	45.21	2.08	52.83
1/4	.70	17.78	.60	15.24	R8001B	1.15	29.21	1.50	38.10	R8101B	1.67	42.42	2.02	51.31	R8101BF	R8101BFN	1.78	45.21	2.13	54.10
1/4	.81	20.57	.60	15.24	R8017B	1.15	29.21	1.55	39.37	R8108B	1.67	42.42	2.07	52.58	R8108BF	R8108BFN	1.78	45.21	2.18	55.37
5/16	.70	17.78	.60	15.24	R8002B	1.15	29.21	1.50	38.10	R8102B	1.67	42.42	2.02	51.31	R8102BF	R8102BFN	1.78	45.21	2.13	54.10
3/8	.70	17.78	.60	15.24	R8003B	1.15	29.21	1.50	38.10	R8103B	1.67	42.42	2.02	51.31	R8103BF	R8103BFN	1.78	45.21	2.13	54.10
3/8	.81	20.57	.60	15.24	R8016B	1.15	29.21	1.55	39.37	R8112B	1.67	42.42	2.07	52.58	R8112BF	R8112BFN	1.78	45.21	2.18	55.37
7/16	.81	20.57	.60	15.24	R8005B	1.15	29.21	1.55	39.37	R8105B	1.67	42.42	2.07	52.58	R8105BF	R8105BFN	1.78	45.21	2.18	55.37
1/2	.81	20.57	.60	15.24	R8004B	1.15	29.21	1.55	39.37	R8104B	1.67	42.42	2.07	52.58	R8104BF	R8104BFN	1.78	45.21	2.18	55.37
Tool					H20					H20					H20					

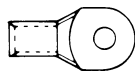
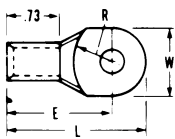


# #1 Air-1/0 Commercial

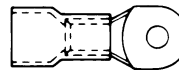
WIRE

SIZE CMA Range 83,100-105,600 • Barrel Inside Diameter .388"/ 9.86 mm

Maximum Wire Diameter .380"/ 9.65 mm



MATERIAL: COPPER



Thickness: .590"/14.99 mm

BASIC DIMENSIONS					NON-INSULATED					INSULATED (WHITE NYLON)				
										INSUL. DIA. .590"/14.99mm				
Stud Size	W In.	W mm	R In.	R mm	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm
1/4	.71	18.03	.58	14.73	R8400B	1.49	37.85	1.84	46.74	R8450BFN	2.14	54.36	2.49	63.25
1/4	.88	22.35	.58	14.73	R8211B	1.49	37.85	1.93	49.02	R8311BFN	2.14	54.36	2.58	65.53
5/16	.71	18.03	.58	14.73	R8401B	1.49	37.85	1.84	46.74	R8451BFN	2.14	54.36	2.49	63.25
5/16	.88	22.35	.58	14.73	R8212B	1.49	37.85	1.93	49.02	R8312BFN	2.14	54.36	2.58	65.53
3/8	.71	18.03	.58	14.73	R8402B	1.49	37.85	1.84	46.74	R8452BFN	2.14	54.36	2.49	63.25
3/8	.88	22.35	.58	14.73	R8213B	1.49	37.85	1.93	49.02	R8313BFN	2.14	54.36	2.58	65.53
7/16	.71	18.03	.58	14.73	R8403B	1.49	37.85	1.84	46.74	R8453BFN	2.14	54.36	2.49	63.25
7/16	.88	22.35	.58	14.73	R8214B	1.49	37.85	1.93	49.02	R8314BFN	2.14	54.36	2.58	65.53
1/2	.71	18.03	.58	14.73	R8404B	1.49	37.85	1.84	46.74	R8454BFN	2.14	54.36	2.49	63.25
1/2	.88	22.35	.58	14.73	R8215B	1.49	37.85	1.93	49.02	R8315BFN	2.14	54.36	2.58	65.53
Tool					H30/H40					H30/H40				

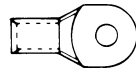
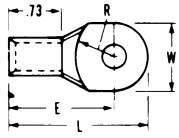


N\* Above items are also available in nylon. To order, add N suffix to Catalog number  
Example: R7998BN

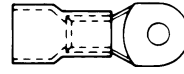
# 1/0 – 2/0 Rings

## Air - Commercial

CMA Range 83,700-119,500  
 Barrel Inside Diameter .443"/ 11.25 mm  
 Maximum Wire Diameter .435"/11.05 mm



MATERIAL: COPPER



THICKNESS: .075"/1.90 mm

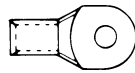
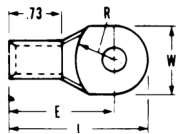
BASIC DIMENSIONS					NON-INSULATED					INSULATED (BLUE NYLON)				
Stud Size	W In.	W mm	R In.	R mm	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm
1/4	.71	18.03	.53	13.46	R8207B	1.49	37.85	1.85	46.99	R8307BFN	2.18	55.37	2.55	64.77
1/4	.88	22.35	.53	13.46	R8202B	1.49	37.85	1.93	49.02	R8302BFN	2.18	55.37	2.63	66.80
5/16	.71	18.03	.53	13.46	R8208B	1.49	37.85	1.85	46.99	R8308BFN	2.18	55.37	2.55	64.77
5/16	.88	22.35	.53	13.46	R8203B	1.49	37.85	1.93	49.02	R8303BFN	2.18	55.37	2.63	66.80
3/8	.71	18.03	.53	13.46	R8209B	1.49	37.85	1.85	46.74	R8309BFN	2.18	55.37	2.55	64.77
3/8	.88	22.35	.53	13.46	R8204B	1.49	37.85	1.93	49.02	R8304BFN	2.18	55.37	2.63	66.80
7/16	.71	18.03	.53	13.46	R8210B	1.49	37.85	1.85	46.74	R8310BFN	2.18	55.37	2.55	64.77
7/16	.88	22.35	.53	13.46	R8205B	1.49	37.85	1.93	49.02	R8305BFN	2.18	55.37	2.63	66.80
1/2	.71	18.03	.53	13.46	R8216B	1.49	37.85	1.85	46.74	R8316BFN	2.18	55.37	2.55	64.77
1/2	.88	22.35	.53	13.46	R8206B	1.49	37.85	1.93	49.02	R8306BFN	2.18	55.37	2.63	66.80
Tool					H30/H40					H30/H40				



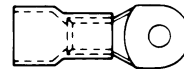
# 2/0 – 3/0 Rings

## Air - Commercial

CMA Range 119,500-150,500  
 Barrel Inside Diameter .502"/ 12.75 mm  
 Maximum Wire Diameter .490"/12.45 mm



MATERIAL: COPPER



THICKNESS: .083"/2.10 mm

BASIC DIMENSIONS					NON-INSULATED					INSULATED (YELLOW NYLON)				
Stud Size	W In.	W mm	R In.	R mm	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm
1/4	.93	23.62	.53	13.46	R8220B	1.50	38.10	1.97	50.04	R8320BFN	2.23	56.64	2.71	68.83
5/16	.93	23.62	.53	13.46	R8221B	1.50	38.10	1.97	50.04	R8321BFN	2.23	56.64	2.71	68.83
3/8	.93	23.62	.53	13.46	R8222B	1.50	38.10	1.97	50.04	R8322BFN	2.23	56.64	2.71	68.83
7/16	.93	23.62	.53	13.46	R8223B	1.50	38.10	1.97	50.04	R8323BFN	2.23	56.64	2.71	68.83
1/2	.93	23.62	.53	13.46	R8224B	1.50	38.10	1.97	50.04	R8324BFN	2.23	56.64	2.71	68.83
Tool					H30/H40					H30/H40				

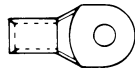
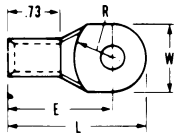


# 3/0 – 4/0 Rings Air - Commercial

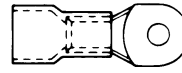
CMA Range 150,500-190,900

Barrel Inside Diameter .572"/ 14.53 mm

Maximum Wire Diameter .560"/14.22 mm



**MATERIAL:** COPPER



**THICKNESS:** .075"/1.90mm

BASIC DIMENSIONS					NON-INSULATED					INSULATED (RED NYLON) INSUL. DIA. .810"/20.57mm				
Stud Size	W In.	W mm	R In.	R mm	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm
1/4	1.08	27.43	.62	15.75	R8237B	1.63	41.40	2.17	55.12	R8337BFN	2.29	58.17	2.87	72.90
5/16	1.08	27.43	.62	15.75	R8238B	1.63	41.40	2.17	55.12	R8338BFN	2.29	58.17	2.87	72.90
3/8	1.08	27.43	.62	15.75	R8239B	1.63	41.40	2.17	55.12	R8339BFN	2.29	58.17	2.87	72.90
7/16	1.08	27.43	.62	15.75	R8240B	1.63	41.40	2.17	55.12	R8340BFN	2.29	58.17	2.87	72.90
1/2	1.08	27.43	.62	15.75	R8241B	1.63	41.40	2.17	55.12	R8341BFN	2.29	58.17	2.87	72.90
5/8	1.08	27.43	.62	15.75	R8242B	1.63	41.40	2.17	55.12	R8342BFN	2.29	58.17	2.87	72.90
3/4	1.08	27.43	.62	15.75	R8243B	1.63	41.40	2.17	55.12	R8343BFN	2.29	58.17	2.87	72.90
<b>Tool</b>					<b>H40</b>					<b>H40</b>				

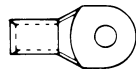
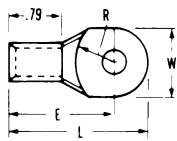


# 4/0 – 250 MCM Rings Air - Commercial

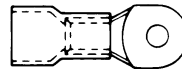
CMA Range 119,500-150,500

Barrel Inside Diameter .641"/ 16.28 mm

Maximum Wire Diameter .635"/16.01 mm



**MATERIAL:** COPPER



**THICKNESS:** .960"/24.38 mm

BASIC DIMENSIONS					NON-INSULATED					INSULATED (BLUE NYLON) INSUL. DIA. .960"/24.38mm				
Stud Size	W In.	W mm	R In.	R mm	NIT Brazed	E In.	E mm	L In.	L mm	Funnel FIT	E In.	E mm	L In.	L mm
1/4	1.14	28.96	.62	15.75	R8256B	1.64	41.65	2.21	56.13	R8356BFN	2.37	60.20	2.97	75.44
5/16	1.14	28.96	.62	15.75	R8257B	1.64	41.65	2.21	56.13	R8357BFN	2.37	60.20	2.97	75.44
3/8	1.14	28.96	.62	15.75	R8258B	1.64	41.65	2.21	56.13	R8358BFN	2.37	60.20	2.97	75.44
7/16	1.14	28.96	.62	15.75	R8259B	1.64	41.65	2.21	56.13	R8359BFN	2.37	60.20	2.97	75.44
1/2	1.14	28.96	.62	15.75	R8260B	1.64	41.65	2.21	56.13	R8360BFN	2.37	60.20	2.97	75.44
5/8	1.14	28.96	.62	15.75	R8261B	1.64	41.65	2.21	56.13	R8361BFN	2.37	60.20	2.97	75.44
3/4	1.14	28.96	.62	15.75	R8262B	1.64	41.65	2.21	56.13	R8362BFN	2.37	60.20	2.97	75.44
<b>Tool</b>					<b>H40</b>					<b>H40</b>				

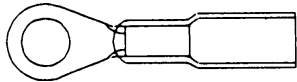


# SECTION 8

## Seal n' Grip Terminals and Splices Heat Shrink Tubing Preapplied

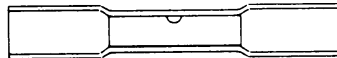
Seal n' Grip terminals and splices offer premium quality tin plated copper assembled with high grade heat shrinkable irradiated insulation. A slight touch of heat forms the insulation around the

Crimped connection and wire, sealing out water, gas and corrosion, plus offers a wire insulation grip able to withstand the most severe vibration applications.



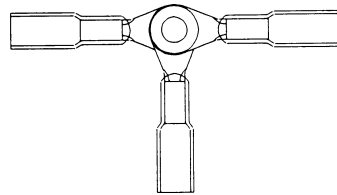
Ring

Catalog Number	Wire Range	Stud Size
R32112 BF	22-18	6
R32113 BF	22-18	8
R32114 BF	22-18	10
R32115 BF	22-18	1/4
R32116 BF	22-18	5/16
R32312 BF	16-14	6
R32313 BF	16-14	8
R32314 BF	16-14	10
R32315 BF	16-14	1/4
R32316 BF	16-14	5/16
R32317 BF	16-14	3/8
R32412 BF	12-10	6
R32413 BF	12-10	8
R32414 BF	12-10	10
R32415 BF	12-10	1/4
R32416 BF	12-10	5/16
R32417 BF	12-10	3/8
R32419 BF	12-10	1/2
R32514 BF	8	10
R32515 BF	8	1/4
R32517 BF	8	3/8
R32519 BF	8	1/2



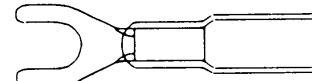
Butt Splice

Catalog Number	Wire Range
B32130BF	22-16
B32330BF	16-14
B32430BF	12-10
B32530BF	8



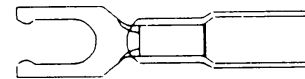
3-Way Splice

Catalog Number	Wire Range
32103BF	22-16
32303BF	16-14
32403BF	12-10



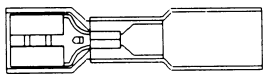
Spade

Catalog Number	Wire Range	Stud Size
S32122BF	22-18	6
S32123BF	22-18	8
S32124BF	22-18	10
S32322BF	16-14	6
S32323BF	16-14	8
S32324BF	16-14	10
S32423BF	12-10	8
S32424BF	12-10	10
S32425BF	12-10	1/2



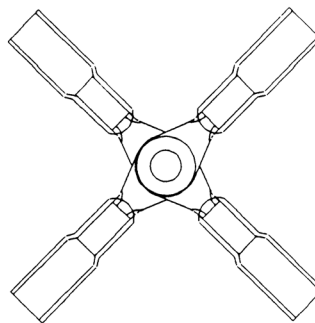
Spring Spade

Catalog Number	Wire Range	Stud Size
SS32144BF	22-16	10
SS32344BF	16-14	10
SS32444BF	12-10	10



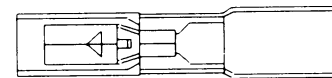
Female Disconnect

Catalog Number	Wire Range	Stud Size
SO32197F	22-18	0.250
SO32397F	16-14	0.250
SO32497F	12-10	0.250



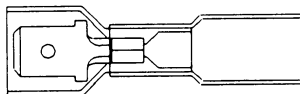
4-Way Splice

Catalog Number	Wire Range
32104BF	22-16
32304BF	16-14
32404BF	12-10



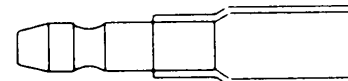
Female Receptacle

Catalog Number	Wire Range	Stud Size
FP32379F	16-14	0.156



Male Disconnect

Catalog Number	Wire Range	Stud Size
SO32187F	22-18	0.250
SO32387F	16-14	0.250
SO32487F	12-10	0.250



Bullet Plug

Catalog Number	Wire Range	Stud Size
MP32369F	16-14	0.156

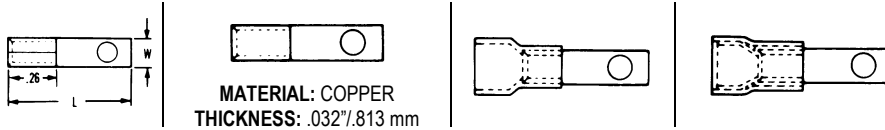
Hollingsworth recommend tooling:  
Wire Range: 22-10 Hand Tool: H3A  
Wire Range: #8 Hand Tool: H20



# SECTION 9

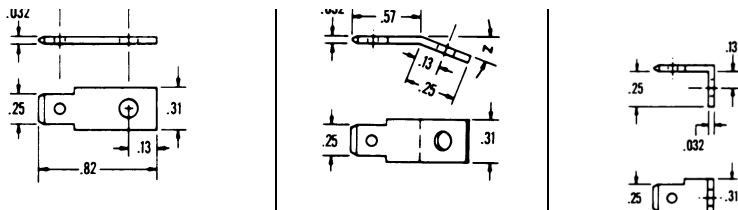
## Miscellaneous and Specialty Items

### 16/14 Straight Tab CMA Range 2050 – 5180 Barrel Inside Diameter .085"/2.16 mm

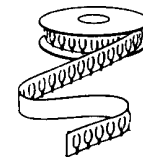


BASIC DIMENSION	NON-INSULATED				INSULATED (BLUE VINYL)			INSULATED (BLUE NYLON)				
	W In.	W mm	NIT	NIT Braze	L In.	L mm	Funnel FIT	L In.	L mm	Funnel FIIG	L In.	L mm
							INSUL. DIA. .195"/4.95 mm			INSUL. DIA. .178"/4.52 mm		
	.15	3.81	ST7000	ST7000B	.83	21.08	ST7010F	1.08	27.43	XST7019N	1.10	27.94
Hand Tool			H4A	H4A			H7B			H7B		

### .032 x .250 Male Tabs

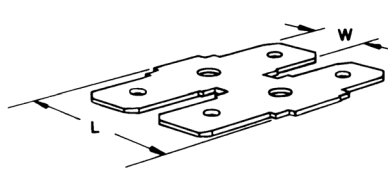


Stud Size	Angle "Z"	Type Tab	NIT
6	0	Straight	H106 †
6	30	Bent	H130 †
6	45	Bent	H132 †
6	60	Bent	H134 †
6	90	Right Angle	H116 †
8	0	Straight	H108 †
8	30	Bent	H131 †
8	45	Bent	H133 †
8	60	Bent	H135 †
8	90	Right Angle	H118 †

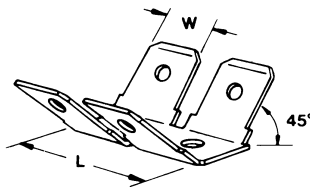


All items listed on this Page (except those Marked with dagger Symbol), are available Tape mounted for fast Automatic crimping with The Hollingsworth H270 Crimping Machine. To Order on tape, add -T Suffix to catalog number. Example: ST7000-T or XST7019N-T.

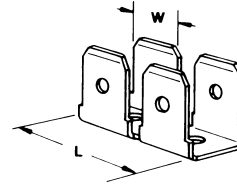
# .032 x .250 Male Tab Pairs



**STYLE K**



**STYLE L**



**STYLE M**

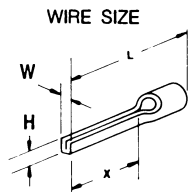
MATERIAL THICKNESS: .032"/.713mm "W" DIMENSION: .250"/6.35 mm

NIT	Pairs	Style	Hole Dia.		Material	L		NIT	Pairs	Style	Hole Dia.		L		
			In.	mm		In.	mm				In.	mm			
H2601	1	K	.130	3.30	Brass	.315	8.00	H2635	1	L	.171	4.34	Tin Plated Brass	.315	8.00
H2602	2	K	.130	3.30	Brass	.690	17.53	H2636	6	L	.130	3.30	Tin Plated Brass	2.191	55.65
H2603	3	K	.130	3.30	Brass	1.065	27.05	H2641	1	M	.097	2.46	Brass	.315	8.00
H2604	4	K	.130	3.30	Brass	1.440	36.58	H2642	2	M	.097	2.46	Brass	.690	17.53
H2605	1	K	.152	3.86	Brass	.315	8.00	H2643	1	M	.130	3.30	Brass	.315	8.00
H2606	1	K	.171	4.34	Brass	.315	8.00	H2644	2	M	.130	3.30	Brass	.690	17.53
H2607	2	K	.171	4.34	Brass	.690	17.53	H2645	3	M	.130	3.30	Brass	1.065	27.05
H2608	3	K	.171	4.34	Brass	1.065	27.05	H2646	4	M	.130	3.30	Brass	1.440	36.58
H2609	4	K	.171	4.34	Brass	1.440	36.58	H2647	5	M	.130	3.30	Brass	1.816	46.13
H2610	1	K	.187	4.74	Brass	.315	8.00	H2648	6	M	.130	3.30	Brass	2.191	55.65
H2611	1	K	.130	3.30	Tin Plated Brass	.315	8.00	H2649	7	M	.130	3.30	Brass	2.565	65.15
H2612	2	K	.130	3.30	Tin Plated Brass	.690	17.53	H2650	9	M	.130	3.30	Brass	3.316	84.23
H2613	3	K	.130	3.30	Tin Plated Brass	1.065	27.05	H2651	12	M	.130	3.30	Brass	4.441	112.80
H2614	4	K	.130	3.30	Tin Plated Brass	1.440	36.58	H2652	1	M	.152	3.86	Brass	.315	8.00
H2615	7	K	.130	3.30	Tin Plated Brass	2.565	65.15	H2653	1	M	.171	4.34	Brass	.315	8.00
H2616	6	K	.130	3.30	Brass	2.191	55.65	H2654	2	M	.171	4.34	Brass	.690	17.53
H2617	6	K	.130	3.30	Tin Plated Brass	2.191	55.65	H2655	3	M	.171	4.34	Brass	1.065	27.05
H2618	7	K	.130	3.30	Brass	2.565	65.15	H2656	4	M	.171	4.34	Brass	1.440	36.58
H2621	1	L	.130	3.30	Brass	.315	8.00	H2661	1	M	.097	2.46	Tin Plated Brass	.315	8.00
H2622	2	L	.130	3.30	Brass	.690	17.53	H2662	1	M	.130	3.30	Tin Plated Brass	.315	8.00
H2623	3	L	.130	3.30	Brass	1.065	27.05	H2663	2	M	.130	3.30	Tin Plated Brass	.690	17.53
H2624	4	L	.130	3.30	Brass	1.440	36.58	H2664	3	M	.130	3.30	Tin Plated Brass	1.065	27.05
H2625	1	L	.171	4.34	Brass	.315	8.00	H2665	4	M	.130	3.30	Tin Plated Brass	1.440	36.58
H2626	2	L	.171	4.34	Brass	.690	17.53	H2666	5	M	.130	3.30	Tin Plated Brass	1.816	46.13
H2627	3	L	.171	4.34	Brass	1.065	27.05	H2667	6	M	.130	3.30	Tin Plated Brass	2.191	55.65
H2628	4	L	.171	4.34	Brass	1.440	36.58	H2668	7	M	.130	3.30	Tin Plated Brass	2.565	65.15
H2629	6	L	.130	3.30	Brass	2.191	55.65	H2669	12	M	.130	3.30	Tin Plated Brass	4.441	112.80
H2631	1	L	.130	3.30	Tin Plated Brass	.315	8.00	H2670	1	M	.152	3.86	Tin Plated Brass	.315	8.00
H2632	2	L	.130	3.30	Tin Plated Brass	.690	17.53	H2671	1	M	.171	4.34	Tin Plated Brass	.315	8.00
H2633	3	L	.130	3.30	Tin Plated Brass	1.065	27.05	H2672	4	M	.171	4.34	Tin Plated Brass	1.440	36.58
H2634	4	L	.130	3.30	Tin Plated Brass	1.440	36.58								



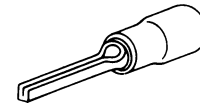
# 22/10 Wire Pins

WIRE SIZE



**22/16** Wire Size CMA Range 509-3260  
Barrel Inside Diameter .061"/1.55 mm

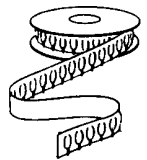
MATERIAL: COPPER .032"/.81 mm THK.



BASIC DIMENSIONS			NON-INSULATED			INSULATED (RED VINYL)		INSULATED (RED NYLON)	
W	H	X	NIT	NIT Brazed	L	Funnel FIT	L	Funnel FIIG	L
In./mm	In./mm	mm			In./mm	In./mm	In./mm	In./mm	In./mm
.070"/1.78mm	.075"/1.90mm	.41"/10.41mm	WP13000S	WP13000SB	.070"/1.78mm	WP13004SF .99"/25.15mm	.99"/25.15mm	XWP13006SN .99"/25.15mm	.99"/25.15mm
Hand Tool			H4A			H7B		H7B	

BASIC DIMENSIONS			NON-INSULATED			INSULATED (BLUE VINYL)		INSULATED (BLUE NYLON)	
W	H	X	NIT	NIT Brazed	L	Funnel FIT	L	Funnel FIIG	L
In./mm	In./mm	mm			In./mm	In./mm	In./mm	In./mm	In./mm
.075"/1.90mm	.075"/1.90mm	.41"/10.41mm	WP13010S	WP13010SB	.070"/1.78mm	WP13014SF .99"/25.15mm	.99"/25.15mm	XWP13016SN .99"/25.15mm	.99"/25.15mm
Hand Tool			H4A			H7B		H7B	

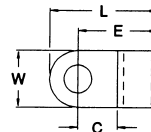
BASIC DIMENSIONS			NON-INSULATED			INSUL. (YELLOW VINYL)		INSUL. (YELLOW NYLON)	
W	H	X	NIT	NIT Brazed	L	Funnel FIT	L	Funnel FIIG	L
In./mm	In./mm	mm			In./mm	In./mm	In./mm	In./mm	In./mm
.090"/2.29mm	.102"/2.59mm	.41"/10.41mm	WP13020	WP13020B	.80"/20.32mm	WP13022F 1.10"/27.94mm	1.10"/27.94mm	XWP13023N 1.15"/29.21mm	1.15"/29.21mm
Hand Tool			H4A	H4A		H6E		H6E	



All Wire Pins listed on this page are available tape mounted for fast Automatic crimping With the Hollingsworth H270 Crimping Machine. To Order on tape, add -T suffix to catalog number. Example: WP13000S-T or XWP13006SN-T

# 12/2 Flag Rings

WIRE SIZE

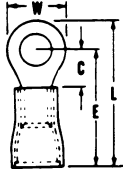


MATERIAL: COPPER

BASIC DIMENSIONS										NON-INSULATED			
Wire Size	CMA Range	Stud Size	Barrel I.D.	W	W	C	C	Mat'l. Thk.	NIT Brazed	E	E	L	L
			In. mm	In. mm	In. mm	In. mm	In. mm	In. mm		In. mm	In. mm	In. mm	In. mm
12-10	5180-13,100	8	.129 3.28	.31 7.87	.25 6.35	.040 1.01			T189B	.48 12.2	.63 16.00		
12-10	5180-13,100	10	.129 3.29	.31 7.87	.25 6.35	.040 1.01			T194B	.48 12.2	.63 16.00		
8	13,100-20,800	10	.180 4.57	.50 12.70	.38 9.65	.040 1.01			T190B	.67 17	.92 23.37		
8	13,100-20,800	1/4	.180 4.57	.50 12.70	.38 9.65	.040 1.01			T191B	.67 17	.92 23.37		
6	20,800-33,100	10	.224 5.69	.50 12.70	.37 9.40	.048 1.22			T192B	.71 18.03	.96 24.38		
6	20,800-33,100	1/4	.224 5.69	.50 12.70	.37 9.40	.048 1.22			T193B	.71 18.03	.96 24.38		
4	33,100-52,600	1/4	.287 7.29	.64 16.26	.43 10.92	.068 1.73			T183B	.89 22.61	1.20 30.48		
4	33,100-52,600	5/16	.287 7.29	.64 16.26	.43 10.92	.068 1.73			T184B	.89 22.61	1.20 30.48		
4	33,100-52,600	3/8	.287 7.29	.64 16.26	.43 10.92	.068 1.73			T185B	.89 22.61	1.20 30.48		
2	52,600-83,700	1/4	.355 9.02	.64 16.26	.46 11.68	.078 1.98			T186B	1.01 25.65	1.32 33.53		
2	52,600-83,700	5/16	.355 9.02	.64 16.26	.46 11.68	.078 1.98			T187B	1.01 25.65	1.32 33.53		
2	52,600-83,700	3/8	.355 9.02	.64 16.26	.46 11.68	.078 1.98			T188B	1.01 25.65	1.32 33.53		

# SECTION 10

## Military Specifications



MIL-T-7928 is the most commonly used government specification for Solderless terminals. This specification permits the use of Class 1 and Class 2 terminals.

Type I Class 1 terminals are those uninsulated terminals which, when crimped with MS approved crimping tool, meet all dimensional and performance requirements of the specification.

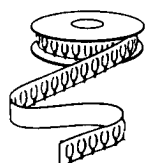
Type II Class 1 terminals are those insulated terminals which, when crimped with MS approved

tool, meet the dimensional and performance requirements of the specification.

Both Type I Class 2 and Type II Class 2 terminals are those which, when crimped with tooling recommended by the manufacturer, meet the performance requirements of the specifications.

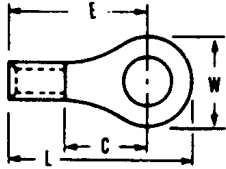
The Hollingsworth terminals which are on the QPL can be found below and on the following pages.

MIL-T-7928 MS25036 (INSULATED)												
MS-25036 Dash No.	W In.	W mm	C In.	C mm	E In.	E mm	L In.	L mm	Type II Class 1 Nylon	Type II Class 2 Nylon	Wire Size	Stud Size
-101	.22	5.59	.16	4.06	.63	16.00	.74	18.80	XR1881SN	XR1881SN	22-18	6
-102	.25	6.35	.32	8.13	.77	19.56	.87	22.10	XR1885SN	XR1885SN	22-18	6
-103	.31	7.87	.32	8.13	.75	19.05	.91	23.11	XR1891SN	XR1891SN	22-18	10
-104	.47	11.94	.44	11.18	.88	22.35	1.09	27.69	XR1895SN	XR1895SN	22-18	5/16
-105	.53	13.46	.44	11.18	.90	22.86	1.17	29.72	XR1896SN	XR1896SN	22-18	3/8
-106	.25	6.35	.16	4.06	.62	15.75	.74	18.80	XR2442SN	XR2442SN	16-14	6
-107	.31	7.87	.28	7.11	.75	19.05	.91	23.11	XR1901SN	XR1901SN	16-14	6
-108	.31	7.87	.28	7.11	.74	18.80	.90	22.86	XR1903SN	XR1903SN	16-14	10
-109	.46	11.68	.44	11.18	.88	22.35	1.09	27.69	XR1907SN	XR1907SN	16-14	5/16
-110	.53	13.46	.44	11.18	.90	22.86	1.17	29.72	XR1908SN	XR1908SN	16-14	3/8
-111	.37	9.40	.28	7.11	.90	22.86	1.04	27.69	XR5107N	XR1908SN	12-10	6
-112	.37	9.40	.28	7.11	.90	22.86	1.09	27.69	XR5109N	XR1908SN	12-10	10
-113	.52	13.21	.47	11.94	1.07	27.18	1.32	33.53	XR5111N	XR1908SN	12-10	5/16
-114	.59	14.99	.50	12.70	1.12	28.45	1.41	35.81	XR5112N	XR1908SN	12-10	3/8
-143	.14	3.56	.17	4.32	.62	15.75	.69	17.53	XR26336N	XR26336N	26-24	2
-144	.20	5.08	.22	5.59	.65	16.51	.76	19.30	XR26337N	XR26337N	26-24	4
-145	.25	6.35	.29	7.37	.73	18.54	.86	21.84	XR16338N	XR16338N	26-24	6
-146	.32	8.13	.29	7.37	.76	19.30	.86	21.84	XR26339N	XR26339N	26-24	8
-147	.32	8.13	.29	7.37	.72	18.29	.86	21.84	XR26340N	XR26340N	26-24	10
-148	.22	5.59	.16	4.06	.70	17.78	.73	18.54	XR1880N	XR1880N	22-18	4
-149	.31	7.87	.32	8.13	.76	19.30	.93	23.62	XR1890N	XR1890N	22-18	8
-150	.47	11.94	.44	11.18	.87	22.10	1.09	27.69	XR1894SN	XR1894SN	22-18	1/4
-152	.25	6.39	.16	4.06	.59	14.99	.73	18.54	XR2441SN	XR2441SN	16-14	4
-153	.31	7.87	.28	7.11	.72	18.29	.90	22.86	XR1902SN	XR1902SN	16-14	8
-154	.46	11.68	.44	11.18	.87	22.10	1.12	28.45	XR1906SN	XR1906SN	16-14	1/4
-156	.37	9.40	.28	7.11	.87	22.10	1.08	27.43	XR5108N	XR5108N	12-10	8
-157	.52	13.21	.47	11.94	1.06	26.92	1.32	33.53	XR5110N	XR5110N	12-10	1/4
-158	.71	18.03	.50	12.70	1.09	27.69	1.41	35.81	XR5117N	XR5117N	12-10	1/2
-159	.22	5.59	.16	4.06	.70	17.78	.73	18.54	XR1879SN	XR1879SN	22-18	2

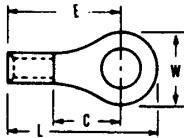


All items listed on this spread are available tape mounted for fast, automatic crimping with the Hollingsworth H270 Crimping Machine. To order on tape, add -T suffix to catalog number. Note: Available 26 thru 4 AWG only.

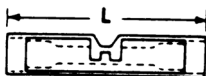
# Military Specifications



MIL-T-7928 MS20659 (NON INSULATED)												
MS-20659 Dash No.	W In.	W mm	C In.	C mm	E In.	E mm	L In.	L mm	Type I Class 1	Type I Class 2	Wire Size	Stud Size
-105	.37	9.40	.28	7.11	.56	14.22	.74	18.80	R3457B	R3457B	12-10	10
-106	.52	13.21	.47	11.94	.74	18.80	1.01	25.65	R3459B	R3459B	12-10	5/16
-128	.59	14.99	.50	12.70	.77	19.56	1.07	27.18	R3220B	R3220B	12-10	3/8
-165	.31	7.87	.27	6.86	.54	13.72	.70	17.78	R3453B	R3453B	12-10	6
-166	.71	18.03	.50	12.70	.77	19.56	1.13	28.70	R3223B	R3223B	12-10	1/2



MIL-T-7928/7 (NON INSULATED) RING TONGUE												
M7928/7 Dash No.	W In.	W mm	C In.	C mm	E In.	E mm	L In.	L mm	Type I Class 1	Type I Class 2	Wire Size	Stud Size
-1	.22	5.58	.16	4.06	.43	10.92	.54	13.72	R4103B	R4103B	22-18	2
-2	.22	5.58	.16	4.06	.43	10.92	.54	13.72	R4104B	R4104B	22-18	4
-3	.28	7.12	.32	8.13	.58	14.73	.72	18.29	R4262B	R4262B	22-18	6
-4	.28	7.12	.32	8.13	.58	14.73	.72	18.29	R4264B	R4264B	22-18	10
-5	.47	11.94	.44	11.18	.70	17.78	.93	23.62	R4114B	R4114B	22-18	5/16
-6	.53	13.46	.44	11.18	.70	17.78	.96	24.38	R4115B	R4115B	22-18	3/8
-7	.31	7.87	.28	7.11	.55	13.97	.70	17.78	R4121B	R4121B	16-14	6
-8	.31	7.87	.28	7.11	.55	13.97	.70	17.78	R4123B	R4123B	16-14	10
-9	.44	11.18	.44	11.18	.71	18.03	.93	23.62	R4125B	R4125B	16-14	5/16
-10	.53	13.46	.44	11.18	.70	17.78	.96	24.38	R4126B	R4126B	16-14	3/8
-11	.25	6.35	.16	4.06	.43	10.92	.54	13.72	R4119B	R4119B	16-14	4



MIL-T-7928/5 INSULATED SPLICES (WINDOW BUTT CONNECTORS)					
M7928/5 Dash No.	L In.	L mm	Type II Class 1	Type II Class 2	Wire Size
-3	1.16	29.46	B1870BN	B1870BN	22-18
-4	1.16	29.46	B1871BN	B1871BN	16-14
-5	1.57	39.88	B1872BN	B1872BN	12-10

# SECTION 11



## **H2A** **Maintenance Tool**

The H2A hand tool is an inexpensive multipurpose maintenance tool designed for easy operation. It produces a quality crimp in a wide variety of Solderless terminals in sizes 22 through 10 AWG, plus butt and parallel connectors and pigtails.



## **H3A** <sup>TM</sup> **Easy-Crimp** **Hand Ratchet Tool**

The H3A provides quality crimping of all fixed insulated terminals (FIT) and connectors in 22-10 AWG wire sizes. A locator positions and holds the terminal while wire is inserted. The tool, not the operator assures a perfect crimp every time; for once the crimp is started, the jaws won't open until the crimp is complete.



## **H4A** <sup>TM</sup> **Easy-Crimp** **Hand Ratchet Tool**

The H4A provides quality crimping of all non-insulated terminals (NIT) and connectors in 22-10 AWG wire sizes. The ratchet-action of the tool assures a quality crimp, for once the jaws begin to close, the operator must complete the crimp cycle before they can be reopened. For foolproof operator identification, each nest is clearly marked by wire size.



## **H6E** <sup>TM</sup> **Easy-Crimp** **Hand Ratchet Tool**

The H6E crimps terminals, butt connectors and parallels in the 12-10 wire range; also 16-14 AWG Heavy Duty terminals. A specially designed locator and wire stop makes the H6E easy to load and speeds production. The tool, not the operator assures a perfect crimp, for once the crimp is started, the jaws cannot be reopened until the crimp is complete.



**H7B** <sup>TM</sup>  
**Easy-Crimp**  
**Hand Ratchet Tool**

This precision tool provides quality crimping of Funnel FIT and Funnel FIIG terminals, butt and parallel connectors in 22-14 AWG wire sizes. High quality crimping is automatic even with unskilled operators: A locator positions and holds the part while the wire is inserted. With the wire in place, the operator simply closes the handles to complete the crimp. Once the jaws begin to close, the crimping cycle must be completed before the jaws can be reopened.

**H8A** <sup>TM</sup>  
**Easy-Crimp**  
**Hand Ratchet Tool**

The H8A crimps funnel entry fixed insulated (FUNNEL FIT) and funnel entry fixed insulated insulation grip (FUNNEL FIIG) terminals in the 26-22 AWG sizes; and funnel entry fixed insulation grip (FUNNEL FIIG) terminals in the 24-20 AWG wire range. It will also crimp funnel entry fixed insulated insulation grip. (FUNNEL FIIG) window butt connectors in the 26-22 AWG and 24-20 AWG wire sizes.



**H9,H15,H18** <sup>TM</sup>  
**Easy-Crimp Hand Ratchet Tool**

Even unskilled operators can produce high quality, high output crimps with these ratchet-action tools. Especially designed to crimp the Hollingsworth pigtail product line. The H9 crimps nylon and kynar pigtails in the 22-14 AWG wire range. The H15 crimps nylon pigtails in the 18-10 AWG wire range. The H18 crimps nylon pigtails in the 18-10 AWG wire range.

In each tool, a specially designed locator makes the tool easy to load and speeds production. The locator positions and holds the pigtail while the wires are inserted. The tool, not the operator, assures a perfect crimp every time, because once the jaws begin to close, the operator must complete the crimping cycle before they can be reopened.



**H13** <sup>TM</sup>  
**Easy-Crimp**  
**Hand Ratchet Tool**

The H13 provides quality crimping of 22-18 AWG and 16-14 AWG female slip-on couplers, fixed insulated female slip-ons (SO FIT) and fully insulated slip-ons (FISO FIT) terminals in the .187, .205, .250 tab series. Handles and nests are color coded for proper usage identification. Even unskilled operators can produce high quality, high output crimps with this ratchet-action tool.



**H16HT** <sup>TM</sup>  
**Easy-Crimp**  
**Hand Ratchet Tool**

The H16HT provides quality crimping of 22-10 AWG 650° and 900° high temperature terminals, male slip-ons and butt connectors. Clear engraved markings identify the proper crimping nest for each terminal size. Ratchet-action guarantees a high quality crimp every time, regardless of the operator's skill. Extra long handles minimize operator fatigue.



**H43** <sup>TM</sup>  
**Easy-Crimp**  
**Hand Ratchet Tool**

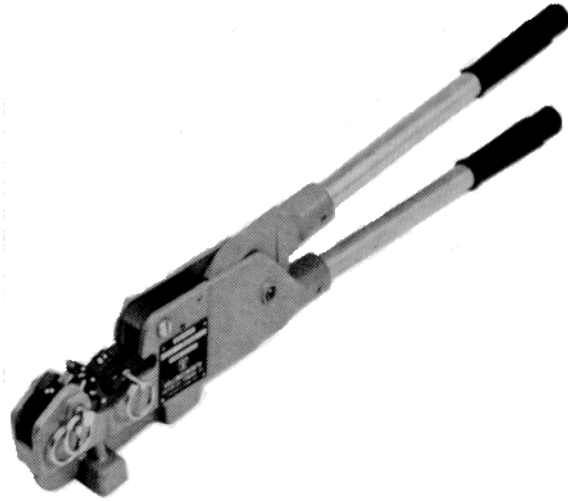
This heavy duty, precision tool provides quality crimping of slip-on terminals in 22 through 14 AWG wire sizes. Easy to use, the locator positions and holds the terminal while the wire is inserted. With ratchet-action, even unskilled operators produce a perfect crimp each and every time.



## H20

### Rotary Nest Crimping Tool

Easy to use, the H20 provides fast and accurate crimping in wire sizes 8 through 2 AWG, for both fixed insulated (FIT) and non-insulated (NIT) terminals, butt and parallel connectors. Versatile 4-in-1 rotary crimping dies eliminate changeover from size to size; one die crimps FIT terminals, the other die crimps NIT terminals. Clear wire size marking and color coding insure the proper selection by the operator. May be bench mounted for convenient operation.



PART NUMBER	DESCRIPTION
H20	Rotary Nest Tool Base with Male Indent Die
H20M	Male Indent Die
H20N	Female Nit Die
H20F	Female Fit Die

## H46, H47 <sup>TM</sup>

### Easy-Crimp Hand Ratchet Tools

These reliable, precise made tools speed production in crimping fully insulated flag slip-on terminals. The H46 crimps fully insulated flags in the 22-18 AWG wire size and the H47 crimps fully insulated flags in the 16-14 AWG wire size. The ratchet-action of the tool assures an easy and quality crimp.



**H28  
Pneumatic  
Crimping Tool**

Crimping heads, the rugged H28 produces high quality crimps on a wide variety of insulated and non-insulated terminals and connectors in wire sizes 26 through 10 AWG. Hand held, suspended from a cable or benchmounted, the

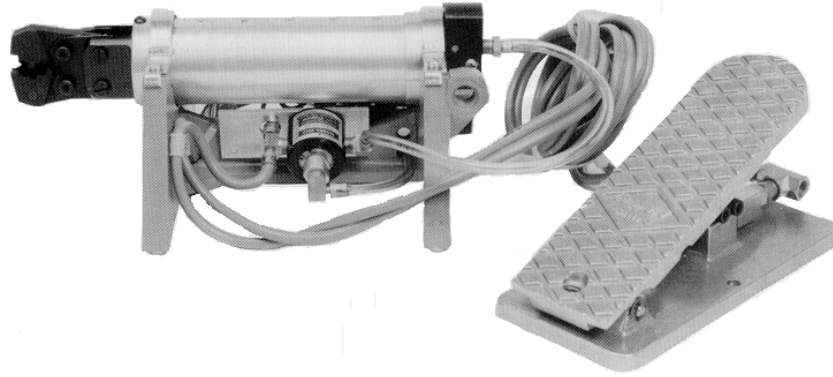
H28 offers many of the advantages of more expensive automatic terminating equipment. Bench mounted and Full Cycle Control available. (Illustrated.)

Bench mounted and operated by a foot control valve, free hands to position terminals and wires. For added

Reliability, pneumatic full-cycle control causes tool to cycle completely each time it is actuated.

The H28 air cylinder accommodates a number of crimping heads:

Head Number	Wire Size	
H28-3A	22-10 AWG	See the individual specification sheets of Hollingsworth hand tools for a description of the terminals and connectors that can be crimped by the corresponding H28 crimping head.
H28-4A	22-10 AWG	
H28-6E	12-10 AWG	
H28-7B	22-14 AWG	
H28-8A	26-20 AWG	
H28-9	22-14 AWG	
H28-13	22-14 AWG	
H28-18	18-10 AWG	
H28-43	22-14 AWG	
H28-46	22-18 AWG	
H28-47	16-14 AWG	
H28-68	18-10 AWG	
H28-75	22-14 AWG	



**H46,H47  
Pneumatic  
Crimping Tool**

The H38 air cylinder with the H38-15 crimping head is especially designed to crimp the NP5671, an 18-8 AWG nylon pigtail connector. This heavy-duty air-powered crimping tool increases productivity right from the start. Because the tool, not the operator does most of the work, productivity remains high shift after shift. Bench Mount and Full Cycle Control available.



**H46,H47  
Pneumatic  
Crimping Tool**

The H30, and its big brother the H40, are heavy duty tools built for years of punishment. Four-indenter dies for both tools may be quickly changed without tools or adjustments. The H30 crimps insulated and non-insulated terminals in 8 AWG to 2/0 wire sizes. The H40 crimps insulated terminals in 1/0 to 250 MCM and non-insulated terminals in 8 AWG to 250 MCM wire sizes. Both tools can be bench mounted and a foot controlled valve is available for both units.

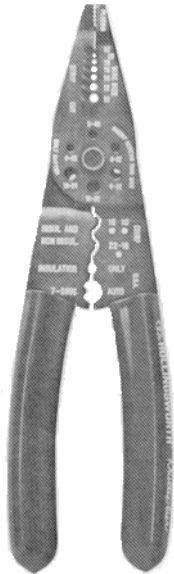


## H59

### Class 1 Military M22520/5-01 Hand ratchet Tool



The H59 is a Class 1 military QPL tool for crimping insulated terminals and splices 26-10 AWG wire sizes relating to MIL-T-7928 MS25036 insulated terminal, MIL-T-7928/1 insulated insulation restriction terminal and MIL-T-7928/5 insulated splice (window butt connector) military specifications. The tool frames are designed with a positive action ratchet assembly which controls complete handle movement in both directions. For foolproof operator identification, each nest is clearly marked by wire size, and comes complete with locators.



## H19

*Multiplier™*

### Multi-purpose Maintenance Tool

The Multiplier™ is a heavy-duty hand tool that can perform a wide variety of maintenance chores. Its unique machined wire stripper effortlessly strips wire in sizes 22 through 10 AWG, and the tool's strategically placed cutter cleanly cuts wire with a minimum of effort.

The Multiplier™ also cuts six common sizes of bolts and screws and crimps insulated and non-insulated terminals in wire sizes 22 through 10 AWG...7-8mm auto ignition terminals too!

Equipped with comfortable plastic coated handles, this rugged all purpose tool is tough enough to take the punishment your daily maintenance requirements demand.



## H45

*Mini-Stripper*

### Wire Stripping Tool

The inexpensive Mini-Stripper is a lightweight wire stripper and cutter designed for operator ease and comfort. Its unique machined stripper effortlessly strips wire in sizes 20 through 10 AWG (.5mm<sup>2</sup> to 5.3mm<sup>2</sup>). The "scissors action" cutter offers a better, cleaner cut and stays sharper longer than traditional "chisel" cutters.

Up front cutting, stripping stations and a serrated pliers jaw add to the Mini-stripper's versatility and allow the user to easily reach into tight places. Plastic coated handles and convenient return spring make for comfortable all-day operation, and the hardened pivot joint and edge-protecting lock insure long life and consistent performance.



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## **H77**

### **Universal Dieless Crimping Head**

The H77 Universal Crimping Head does not require different die sets when crimping a particular terminal. The superior design of three movable indentors, which close against one stationary indenter, allow crimping of non-insulated terminals and splices 4 AWG through 250 MCM. The H77 is a light weight tool, available bench mountable (optional) with a terminal locator, to be used with the H37 portable pump.

## **H37**

### **Portable Remote Control Pump**

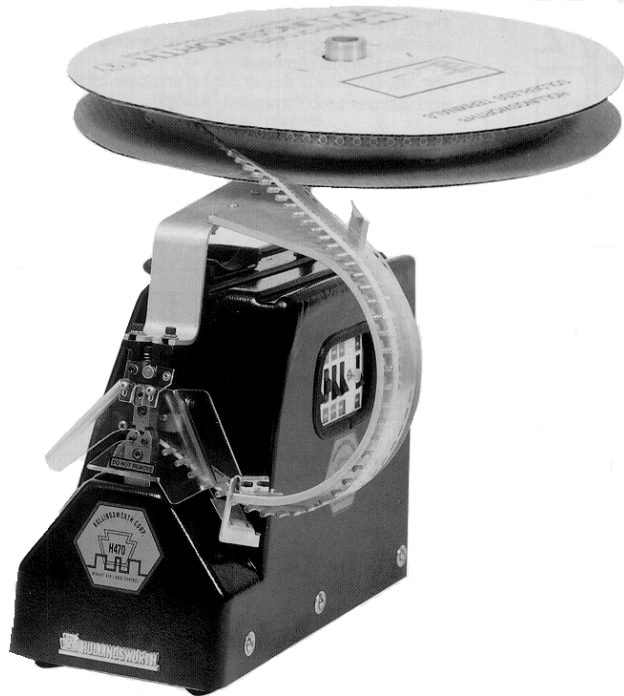
The H37 pump gives the operator 100% control with "No Cycling" foot pedal control for advance , stop, or retreat crimp action. This feature increases efficiency and safety with the ability to stop or retreat during crimping. No other pump offers such flexibility.

# H470/H470-1

## Automatic Crimping for Terminals on Tape

- **Fast safe, automatic terminal crimping with advanced Binary Air Logic Control design.**
- **Requires regulated shop air supply for operation.**

- Crimps in excess of 3600 pieces per hour with speed change capability
- Quick change dies crimp a full range of insulated and non-insulated terminals from 26 through 4 AWG wire sizes
- Can be operated manually or in automatic mode
- Easy and safe to use, feed, and change dies
- Requires normal 80-105 psi shop air
- Terminal crimping reels are top-mounted on an integral support bracket
- Double index capability (H470-1) for #8 through #4 AWG terminal crimping
- No electrical connection required



### OPERATION

#### Automatic Mode

The foot pedal is held down continuously, and stripped wire ends are inserted into terminal. Sensor activates machine only when wire is in exact position, providing best possible crimp. Permits unskilled labor to use the machine.

#### Manual Mode

The operator places stripped wire end in the terminal between the crimping jaws and depresses the foot treadle. Foot treadle actuates the crimping jaws.

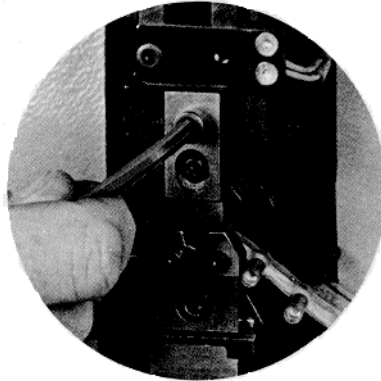
#### Terms

H470 and H470-1 units can be leased or purchased. Contact Hollingsworth for details.



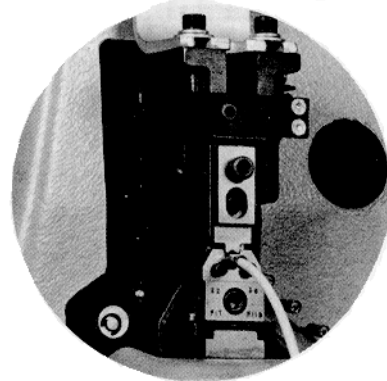
#### FAST

The H470 and H700-1 operates as fast as your fastest operator can insert stripped wire ends. Terminals are captivated between crimps for stable fixed "target".



#### FOOLPROOF

Dies are held in place with just two screws. Precise, built-in, foolproof die alignment -- you can't insert them wrong.



#### TROUBLE-FREE

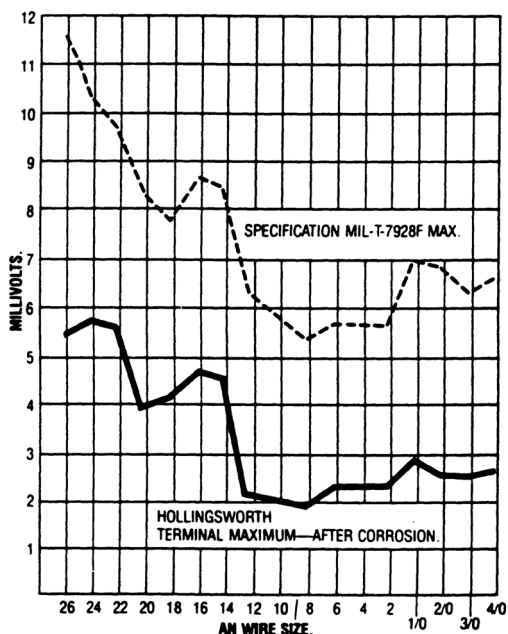
Smooth-operating, problem-free ejector mechanism ejects crimped terminals. Machine is virtually jam-proof.

## Performance Characteristics

These test were performed under strict laboratory controlled conditions and may vary depending on type of wire and terminal combinations, wire stripping methods, and maintenance of proper gauging and calibration of manufacturer's recommended tooling.

**CHART 9072**  
**Corrosion (Salt Spray) Test 48**  
**Hours, 5% NAACL Fog**

**NOTE:** Specification Maximum:  
 Voltage drop of equivalent  
 wire length, plus specification  
 allowance.



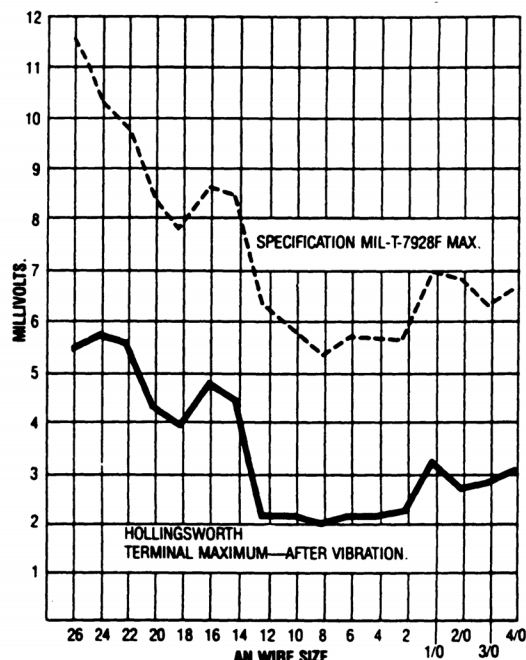
### Salt Spray (Corrosion) Test

The purpose of this test, in which terminal samples are subjected to a fine mist of 5% salt solution for a specific time (48 hours), is to provide an accelerated laboratory conducted corrosion test.

The curves shown on chart 9072 plot the final voltage drops (i.e., after subjecting the samples to salt spray), as called for in specification MIL-T-7928. For a terminal to meet or exceed requirements, its voltage drop readings after test must fall below the limits shown in the upper curve (final). All Hollingsworth Military approved terminals exceed MIL-T-7928 Salt Spray (Corrosion) Test requirements.

**Chart 9073**  
**Vibration Test 10-55 C.P.S. for 36**  
**hours**

**NOTE:** Specification Maximum:  
 Voltage drop of equivalent  
 wire length, plus specification  
 allowance.



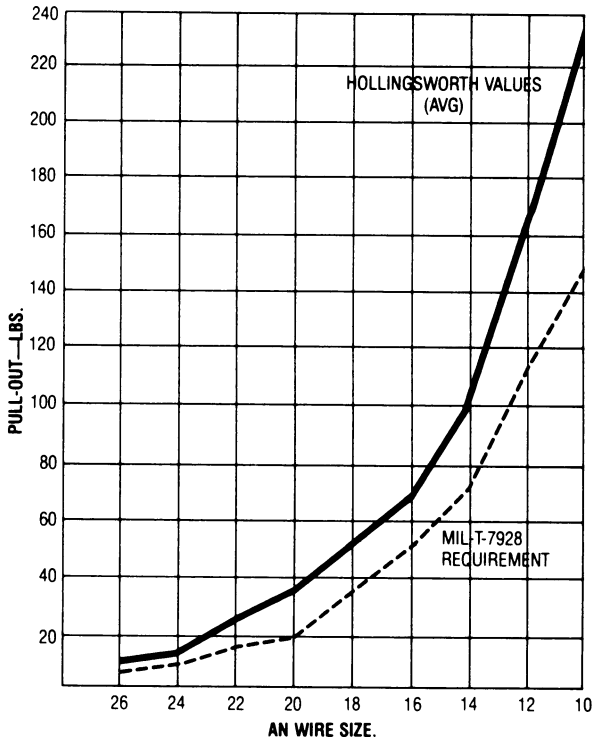
### Vibration Test

The purpose of this test is to determine the detrimental effect of vibration on the terminal. Terminals are attached to each end of a suitable length of wire. The test terminals are mounted in a specially built vibration machine, conforming to the requirements as set out in paragraph 4.7.7 of specifications MIL-T-7928.

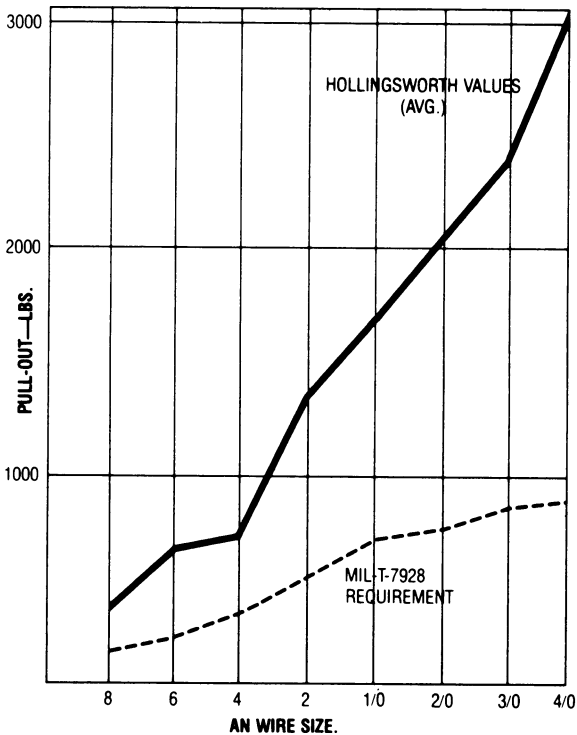
The test terminals are subjected to vibrations of 10 through 55 cps. For a period of 18 hours in one plane and a further 18 hours in a plane normal to the first; a total test period of 36 hours, and are subjected to voltage drop tests before and after vibration.

The curves shown on chart 9073 plot voltage drops (i.e. after subjecting the samples to the vibration test). For a terminal to meet or exceed requirements, its voltage drop readings after test must fall below the limits shown in the upper curve (final). All Hollingsworth Military approved terminals exceed MIL-T-7928 Vibration Tests.

**CHART 9074**  
**Tensile Strength Test 26-10 AWG**



**CHART 9075**  
**Tensile Strength Test 8-4/0 AWG**



### Tensile Strength Test

The purpose of this test is to ensure secureness of the crimped terminal. The test is carried out as indicated under paragraph 4.7.8 of specifications MIL-T-7928.

After crimping the terminal to a suitable length of wire, it is placed in a standard tensile testing machine and sufficient force is applied to pull the wire out of the terminal or break the wire, or the terminal.

The lower curve on charts 9074 and 975 plots the minimum pull out force expected for the various wire sizes crimped. The upper curve plots average pull out forces measured in actual tests on numerous samples. All Hollingsworth Military approved terminals exceed MIL-T-7928 Tensile Strength requirements.

# SECTION 13

## Easy-Tys — The outstanding Wire and Cable Wrapping System

Hollingsworth's wire and cable wrapping system is engineered for simple and secure binding. It consists of strong, flexible Easy-Ty cable ties and a rugged, easy to use tensioning tool. The Easy-Tys are designed for quick insertion into the unique self locking head. The tensioning tool is designed for trouble-free production use.

Easy-Tys put an end to unwieldy wiring configurations by securing wire bundles, cables and harnesses into neat and manageable packages. Hollingsworth's selection of ties includes a wide variety of popular sizes in both

Standard and mounting styles to match your needs.

Easy-Tys are made of high strength Nylon that resists abrasion and chemicals such as common solvents, alkalis, dilute acids, oils and greases. They have excellent dielectric properties, are self extinguishing and fungus resistant.

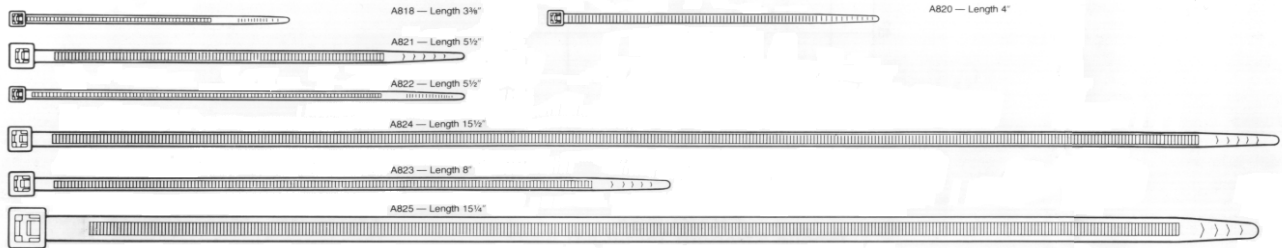
Easy-Tys are designed for continuous use from -40°F (-40°C) to +185°F (+85°C) and will withstand temperatures up to 300°F (149°C). They meet applicable Military Specifications, are QPL listed, and UL recognized under File Number E31304.

### Designed to Save Labor

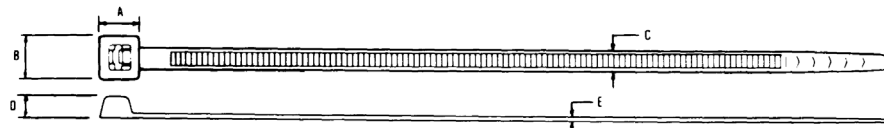
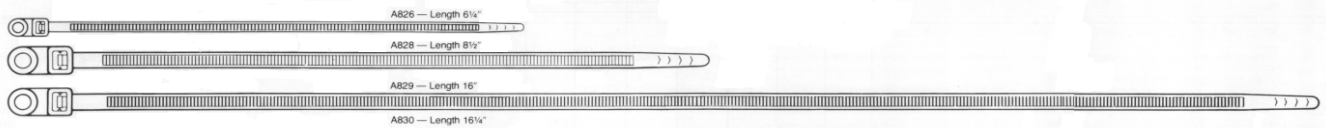
Flexible and resilient, the ties can be wrapped around a bundle quickly and easily. The smaller standard sizes have bent tails to facilitate rapid tail-to-head insertion by the operator.

Easy-Tys have several other labor-saving installation features: uniform serrations along the length of the ties, smooth edges and rounded, tapered tails. All designed to make it quick and easy to insert the tail into the unique locking head, pull through then fasten and cut with production-quality tensioning tool.

### Standard Easy-Tys (standard color: natural)



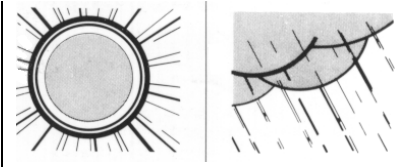
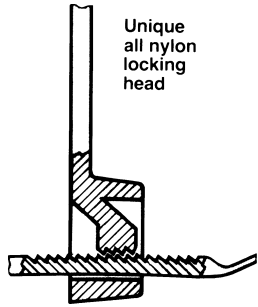
### Mounting Easy-Tys (standard color: natural)



### Standard Easy-Tys

Catalog Number	Measure	A	B	C	D	E	F	G	Overall Length	Maximum Cable Diameter	Min. Tensile Strength (Lbs.)
A-820	In	.170	.180	.098	.143	.041	—	—	4.00	.750	18
	mm	4.381	4.572	2.489	3.632	1.041	—	—	101.60	19.05	
A-821	In	.225	.237	.141	.197	.046	—	—	5.50	1.25	30
	mm	5.715	6.019	3.581	5.004	1.168	—	—	139.70	31.75	
A-823	In	.285	.294	.184	.236	.047	—	—	8.00	1.75	50
	mm	7.239	7.467	4.674	5.994	1.194	—	—	203.20	44.45	
A-823	In	.285	.294	.184	.210	.053	—	—	15.50	4.00	50
	mm	7.239	7.467	4.674	5.334	1.346	—	—	393.7	101.60	
A-825	In	.365	.500	.302	.310	.0768	—	—	15.25	4.00	120
	mm	9.271	12.700	7.671	7.874	1.981	—	—	387.35	101.60	





For those applications exposed to the outside elements, a Weather Resistant Ty is available. Black in color, all Standard Easy-Tys shown below are available as Weather Resistant Tys. To order, simply add a -9 to the appropriate part number

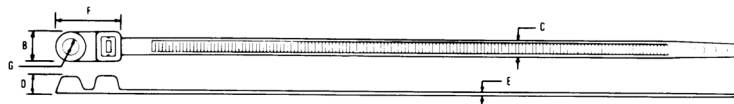
Part No.	Bundle Diameter Min-Max	Minimum Tensile Strength**	Length		Tool Tension Setting	Applicable Military Specification		
			In	mm				
A-820	1/16"-3/4"	18 lb.	4.00	101.60	1-2	MS17821-4	MS18034-4	MS3367-4
A-821	1/16"-1 1/4"	30 lb.	5.50	139.70	2-3		MS18034-5	MS3367-5
A-823	1/16"-1 3/4"	50 lb.	8.00	203.20	3-4	MS17821-1	MS18034-1	MS3367-1
A-824	1/16"-4"	50 lb.	15.50	393.70	3-4	MS17821-2	MS18034-2	MS3367-2
A-825	1/16"-4"	120 lb.	15.25	387.35		MS17821-3	MS18034-3	MS3367-3

\*\* after conditioning at 49°C with a 20% relative humidity for 24 hours prior to tensile test.



Part No.	Bundle Diameter Min-Max	Minimum Tensile Strength**	Length		Mounting Hole Size	Tool Tension Setting
			In	mm		
A-826	1/16"-1 1/4"	30 lb.	6.25	158.75	#8	2-3
A-828	1/16"-1 3/4"	50 lb.	8.50	215.90	#10	3-4
A-829	1/16"-4"	50 lb.	16.00	406.40	#10	3-4

\*\* after conditioning at 49°C with a 20% relative humidity for 24 hours prior to tensile test.



**Mounting Easy-Tys**

Catalog Number	Measure	B	C	D	E	F	G	Overall Length	Maximum	Min.
									Cable Diameter	Tensile Strength
A-826	In	.285	.142	.198	.046	.534	.170	6.25	1.25	30 lb.
	mm	7.239	3.607	5.029	1.168	13.563	4.318	158.75	31.75	
A-828	In	.343	.183	.236	.046	.774	.208	8.50	1.75	50 lb.
	mm	8.712	4.648	5.994	1.168	19.659	5.238	215.90	44.45	
A-929	In	.348	.187	.239	.055	.788	.212	16.00	4.0	50 lb.
	mm	8.839	4.750	6.070	1.397	20.015	5.384	406.40	101.60	

Hollingsworth Legend	
Color Suffix No.	Color Code
None	Nature
-9	Black

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# Section 15

## Part Number to Page Number Reference

Part Number	Page Number	Part Number	Page Number	Part Number	Page Number	Part Number	Page Number	Part Number	Page Number	Part Number	Page Number	Part Number	Page Number
BTS	22	BO411	45	XR1881SN	5, 54	H2648	52	TL3064	38	R3501B	45	R4106SB	5
BTTAP	22	BO411F	45	XR1882SN	5	H2649	52	TL3065	38	R3502B	45	R4110	5
RTS	22	BO411N	45	XR1885SN	5, 54	H2650	52	TL3066	38	R3502BF	45	R4110B	5
RTTAP	22	H470	63	XR1890SN	5, 54	H2651	52	TL3067	38	R3503BFN	45	R4110S	5
WTS	22	BO500	45	XR1891SN	5, 54	H2653	52	TL3068	38	R3502BN	45	R4110SB	5
YTS	22	A820	66, 67	XR1894SN	5, 54	H2654	52	TL3069	38	R3503B	45	R4111	5
YTTAP	22	A821	66, 67	XR1895SN	5, 54	H2655	52	TL3070	38	R3503BF	45	R4111B	5
H2A	56	A823	66, 67	XR1896SN	5, 54	H2656	52	TL3071	38	R3503BFN	45	R4111S	5
H3A	56	A824	66, 67	XR1901GSN	9	H2661	52	TL3072	38	R3503BN	45	R4111SB	5
H4A	56	A825	66, 67	XR1901SN	9, 54	H2662	52	TL3073	38	R3504B	45	R4112	5
H6E	56	A826	66, 67	XR1902GSN	9	H2663	52	TL3074	38	R3504BF	45	R4112B	5
H7B	57	A828	66, 67	XR1902SN	9, 54	H2664	52	TL3075	38	R3504BFN	45	R4112S	5
H8A	57	A829	66, 67	XR1903GSN	9	H2665	52	TL3076	38	R3504BN	45	R4112SB	5
H9	57	P1100	44	XR1903SN	9, 54	H2666	52	TL3077	38	R4001B	46	R4113	5
HDR12	12	P1110	44	XR1906SN	9, 54	H2667	52	TL3078	38	R4001BF	46	R4113B	5
HDR12B	12	SO1120S	29	XR1907SN	9, 54	H2668	52	TL3079	38	R4001BFN	46	R4113S	5
H13	58	SO1121SF	29	XR1908SN	9, 54	H2669	52	TL3080	38	R4001BN	46	R4113SB	5
H15	57	XSO1122SN	29	B1920B	19	H2670	52	TL3081	38	R4002B	46	R4114	5
H16HT	58	SO1125SF	31	B1921BN	19	H2671	52	R3220	14	R4002BF	46	R4114B	5, 55
H18	57	SO1126SF	29	B1922B	19	H2672	52	R3220B	14, 55	R4002BFN	46	R4114S	5
H19	61	SO1130S	29	XS2053SN	7	R2994	14	R3222	14	R4002BN	46	R4114SB	5
H20	59	SO1131SF	29	XS2054SN	7	R2994B	14	R3222B	14	R4003B	46	R4115	5
HDR21	12	XSO1132SN	29	XS2058SN	10	S2995	14	R3223	14	R4003BF	46	R4115B	5, 55
HDR23	12	SO1135SF	31	XS2059SN	10	S2995B	14	R3223B	14, 55	R4003BFN	46	R4115S	5
HDR23B	12	SO1136S	29	XS2060SN	10	R2996B	45	R3301B	9	R4003BN	46	R4115SB	5
HDR24	12	SO1137S	31	B2151	19	R3027B	45	R3420	43	R4004B	46	S4116	7
HDR24B	12	XSO1139SN	31	B2151B	19	R3027BF	45	R3421	43	R4004BF	46	S4116B	7
HDR27F	12	SO1144S	31	B2151S	19	R3027BFN	45	R3422	43	R4004BFN	46	S4116S	7
H28	60	XSO1146SN	31	XS2404SN	7	R3027BN	45	R3423	43	R4004BN	46	S4116SB	7
H30	60	P1200	44	XR2441SN	9, 54	R3028B	45	R3424	43	R4005B	46	S4117	7
HDR33F	12	P1210	44	XR2442SN	9, 54	R3028BF	45	R3425	43	R4005BF	46	S4117B	7
HDR34F	12	P1210F	44	XSF2498SN	8	R3028BFN	45	R3426	43	R4005BFN	46	S4117S	7
H37	62	P1210N	44	XSF2509N	16	R3028BN	45	R3428B	40	R4005BN	46	S4117SB	7
H38	60	P1300	44	XSF2559SN	8	R3030B	45	R3429B	40	R4007B	46	S4118	7
H40	60	P1310	44	XSF2560SN	8	R3030BF	45	R3430B	40	R4007BF	46	S4118B	7
41B	26	P1310F	44	XSF2561SN	8	R3030BFN	45	R3431B	40	R4007BFN	46	S4118S	7
H43	58	P1310N	44	XSF2562SN	8	R3030BN	45	R3432B	40	R4007BN	46	S4118SB	7
43B	26	HDR1339B	8	XS2587N	14	R3031B	45	R3433B	40	R4008B	46	R4119	9
H45	61	HDR1361	13	XS2588N	14	R3031BF	45	R3444B	45	R4008BF	46	R4119B	9, 55
H46	59	HDR1361B	13	XS2589N	14	R3031BFN	45	R3445B	45	R4008BFN	46	R4119S	9
H47	59	HDR1362	13	H2601	52	R3031BN	45	R3446	17	R4008BN	46	R4119SB	9
H59	61	HDR1362B	13	H2602	52	R3032B	45	R3446B	17	R4010B	46	R4120	9
XHDR61N	12	HDR1363	13	H2603	52	R3032BF	45	R3447	17	R4010BF	46	R4120B	9
XHDR63N	12	HDR1363B	13	H2604	52	R3032BFN	45	R3447B	17	R4010BFN	46	R4120S	9
XHDR64N	12	HDR1374BF	13	H2605	52	R3032BN	45	R3448	17	R4010BN	46	R4120SB	9
XHDR67N	12	HDR1375BF	13	H2606	52	R3033B	45	R3448B	17	P4019	20	R4121	9
H77	62	HDR1376BF	13	H2607	52	R3033BF	45	R3452	14	B4040B	20	R4121B	9, 55
BO100B	45	XHDR1380N	13	H2608	52	R3033BFN	45	R3452B	14	B4041B	20	R4121G	9
H106	51	XHDR1382N	13	H2609	52	R3033BN	45	R3453	14	B4044BF	20	R4121GB	9
H108	51	P1500	44	H2610	52	R3034B	45	R3453B	14, 55	B4044BN	20	R4121GS	9
BO110B	45	P1600	44	H2611	52	R3034BF	45	R3454	14	B4045BF	20	R4121GSB	9
BO110BF	45	P1700	44	H2612	52	R3034BFN	45	R3454B	14	B4045BN	20	R4121S	9
BO110BN	45	B1818	19	H2613	52	R3034BN	45	R3455	14	B4067BN	19	R4121SB	9
H116	51	B1818B	19	H2614	52	R3039B	45	R3455B	14	B4067N	19	R4122	9
H118	51	B1818S	19	H2615	52	R3039BF	45	R3456	14	B4067SN	19	R4122B	9
H130	51	B1819	19	H2616	52	R3039BFN	45	R3456B	14	B4068BN	19	R4122G	9
H131	51	B1819B	19	H2617	52	3039BN	45	R3457	14	B4068N	19	R4122GS	9
H132	51	B1819S	19	H2618	52	R3040B	45	R3457B	14, 55	B4068SN	19	R4122S	9
H133	51	B1841BN	20	H2621	52	R3040BF	45	R3458	14	B4069BN	19	R4122SB	9
H134	51	B1842	43	H2622	52	R3040BFN	45	R3458B	14	B4069N	19	R4123	9
H135	51	B1843B	42	H2623	52	R3040BN	45	R3459	14	B4069SN	19	R4123B	9, 55
T183B	53	B1845	43	H2624	52	R3041B	45	R3459B	14, 55	B4070	19	R4123G	9
T184B	53	B1846B	42	H2625	52	R3041BF	45	R3460B	45	B4070B	19	R4123GB	9
T185B	53	B1852	43	H2626	52	R3041BFN	45	R3461B	45	B4070S	19	R4123GS	9
T186B	53	B1853B	42	H2627	52	R3041BN	45	R3462B	45	B4071	19	R4123GSB	9
T187B	53	XR1856SN	5	H2628	52	R3042B	45	R3463B	45	B4071B	19	R4123S	9
T188B	53	XR1857SN	5	H2629	52	R3042BF	45	R3470B	41	B4071S	19	R4123SB	9
T190B	53	XR1858SN	5	H2631	52	R3042BFN	45	R3472B	41	B4072	19	R4124	9
T191B	53	XR1859SN	5	H2632	52	R3042BN	45	S3478	14	B4072B	19	R4124B	9
T192B	53	B1868BN	20	H2633	52	R3043B	45	S3478B	14	B4072S	19	R4124S	9
T193B	53	B1870BN	20, 55	H2634	52	R3043BF	45	S3479	14	R4103	5	R4124SB	9
BO200B	45	B1871BN	20, 55	H2635	52	R3043BFN	45	S3479B	14	R4103B	5, 55	R4125	9
BO210B	45	B1872BN	20, 55	H2636	52	R3043BN	45	R3491B	45	R4103S	5	E4125B	9, 55
BO210BF	45	B1873B	20	H2641	52	R3044B	45	R3492B	45	R4103SB	5	R4125S	9
BO210BN	45	B1874B	20	H2642	52	R3044BF	45	R3493B	45	R4104B	5, 55	R4125SB	9
BO300	45	B1875B	20	H2643	52	R3044BFN	45	R3494B	45	R4104S	5	R4126	9
BO310	45	B1877B	20	H2644	52	R3044BN	45	R3495B	45	R4104SB	5	R4126B	9, 55
BO310F	45	B1878B	20	H2645	52	TL3061	38	R3496B	45	R4105	5	R4126S	9
BO310N	45	XR1879SN	5, 54	H2646	52	TL3062	38	R3499B	45	R4105B	5	R4126SB	9
BO401	45	XR1880SN	5, 54	H2647	52	TL3063	38	R3500B	45	R4105S	5	R4127	10

Part Number	Pane Number	Part Number	Pane Number	Part Number	Pane Number	Part Number	Pane Number	Part Number	Pane Number	Part Number	Pane Number	Part Number	Pane Number
S4127B	10	R4206F	5	XR5114N	14	R8004B	47	R8339BFN	49	SO9426S	30	H20265F	17
S4127S	10	R4206SF	5	NP5115	19	R8005B	47	R8340BFN	49	SO9427S	30	H20266F	17
S4127SB	10	R4246BF	17	XR5117N	14, 54	R8016B	47	R8341BFN	49	SO9444SF	30	H20267F	17
S4128	10	R4247BF	17	XR5118N	14	R8017B	47	R8342BFN	49	SO9445SF	30	XBS20532SN	7
S4128B	10	R4248BF	17	R5122B	46	R8027B	41	R8343BFN	49	SO9446SF	30	XBS20543SN	7
S4128S	10	XR4256N	17	R5122BF	46	R8028B	41	R8356BFN	49	SO9447SF	30	XBS20579SN	11
S4128SB	10	XR4257N	17	R5122BFN	46	R8029B	41	R8357BFN	49	XSO9450SN	30	XBS20582SN	11
S4129	10	R4261S	5	R5122BN	46	R8100B	47	R8358BFN	49	XSO9451SN	30	XBS20583SN	11
S4129B	10	R4261SB	5	R5123B	46	R8100BF	47	R8359BFN	49	XSO9452SN	30	XBS20588SN	11
S4129S	10	R4262	5	R5123BF	46	R8100BFN	47	R8360BFN	49	XSO9453SN	30	XBS20592SN	11
S4129SB	10	R4262B	5, 55	R5123BFN	46	R8100BN	47	R8361BFN	49	SO9478S	34	XBS20602SN	11
P4130	20	R4262S	5	R5123BN	46	R8101B	47	R8362BFN	49	SO9479S	34	SF20746	8
P4130B	20	R4262SB	5	R5124B	46	R8101BF	47	R8400B	47	SO9487S	34	SF20746B	8
P4131BN	20	R4263S	5	R5124BF	46	R8101BFN	47	R8401B	47	SO9488S	34	SF20746BS	8
P4131N	20	R4263SB	5	R5124BFN	46	R8101BN	47	R8402B	47	SO9489S	34	SF20746SB	8
P4132	20	R4264	5	R5124BN	46	R8102B	47	R8403B	47	SO9490S	34	SF20747	8
P4132B	20	R4264B	5, 55	R5125B	46	R8102BF	47	R8404B	47	SO9600S	29	SF20747B	8
P4133BN	20	R4264S	5	R5125BF	46	R8102BFN	47	R8450BFN	47	SO9601S	29	SF20747S	8
P4133N	20	R4264SB	5	R5125BFN	46	R8102BN	47	R8451BFN	47	SO9602S	29	SF20747SB	8
P4134	20	R4265SF	5	R5125BN	46	R8103B	47	R8452BFN	47	SO9603S	29	SF20748	8
P4135BN	20	R4266F	5	R5126B	46	R8103BF	47	R8453BFN	47	SO9604S	29	SF20748B	8
P4135N	20	R4266SF	5	R5126BF	46	R8103BFN	47	R8454BFN	47	SO9605S	29	SF20748S	8
P4136	20	R4267S	5	R5126BFN	46	R8103BN	47	SO9003	32	SO9606S	29	SF20748SB	8
P4137	20	R4268F	5	R5126BN	46	R8104B	47	SO9004S	32	SO9607S	29	SF20749	8
P4137B	20	R4268SF	5	R5127B	46	R8104BF	47	SO9012S	42	SO9609S	29	SF20749B	8
P4138	20	R4270S	42	R5127BF	46	R8104BFN	47	SO9013F	32	SO9615SF	29	SF20749S	8
P4138B	20	R4271S	42	R5127BFN	46	R8104BN	47	SO9014SF	32	SO9616SF	29	SF20749SB	8
R4140F	5	R4272S	42	R5127BN	46	R8105B	47	SO9015S	42	SO9617SF	29	SF20750	8
R4140SF	5	R4273S	42	R5128B	46	R8105BF	47	SO9016S	42	SO9618SF	29	SF20750B	8
R4141SF	5	R4275SB	40	R5128BF	46	R8105BFN	47	SO9017S	40	SO9619SF	29	SF20750S	8
R4142F	5	R4276SB	40	R5128BFN	46	R8105BN	47	SO9018S	40	XSO9620SN	29	SF20750SB	8
R4142SF	5	R4277SB	40	R5128BN	46	R8108B	47	SO9019S	40	XSO9621SN	29	SS20815F	15
R4147F	5	R4278SB	40	R5138B	46	R8108BF	47	XSO9024SN	32	XSO9622SN	29	SS20828	15
R4147SF	5	R4279SB	40	R5138BF	46	R8108BFN	47	SO9014	30	XSO9623SN	29	SS20829	15
R4148F	5	R4300S	43	R5138BFN	46	R8108BN	47	SO9104S	30	XSO9624SN	29	SS20830	15
R4148SF	5	R4301S	43	R5138BN	46	R8112B	47	SO9105	30	XMP9645SN	37	SS20831	15
R4149F	5	R4302S	43	SO5300F	27	R8112BF	47	SO9105S	30	XMP9646SN	37	SS20832F	15
R4149SF	5	R4303S	43	SO5301F	27	R8112BFN	47	SO9106	30	XMP9658SN	36	SS20833F	15
R4150F	5	R4305SB	40	SO5302F	27	R8112BN	47	SO9106S	30	XMP9659SN	36	SS20834F	15
R4150SF	5	R4306SB	40	SO5303F	27	R8202B	48	SO9110F	30	SO9700S	31	XSS20836N	15
R4151F	5	R4307SB	40	SO5304F	27	R8203B	48	SO9110SF	30	SO9701S	31	XSS20837N	15
R4151SF	5	R4308SB	40	SO5305F	28	R8204B	48	SO9112F	30	SO9702S	31	XSS20838N	15
R4152F	5	R4309SB	40	SO5306F	28	R8205B	48	SO9112SF	30	SO9703S	31	SF20855S	12
R4152SF	5	MP4846	37	SO5307F	28	R8206B	48	SO9113F	30	SO9704S	31	SF20855SB	12
R4154F	7	MP4847F	37	SO5308F	28	R8207B	48	SO9113SF	30	SO9705S	31	SF20856S	12
S4154SF	7	XMP4848N	37	SO5309F	28	R8208B	48	XSO9115SN	30	SO9706S	31	SF20856SB	12
S4155F	7	R5000B	46	SO5315F	28	R8209B	48	XSO9116SN	30	SO9707S	31	XSF20861SN	12
S4155SF	7	R5001B	46	SO5316SF	27	R8210B	48	XSO9117SN	30	SO9708S	31	XSF20862SN	12
S4156F	7	R5002B	46	SO5317SF	27	R8211B	47	SO9118	32	SO9709S	31	XSS20887N	15
S4156SF	7	R5003B	46	SO5318SF	27	R8212B	47	SO9118S	32	SO9718SF	31	SS20889S	10
R4158F	9	R5004B	46	SO5319SF	27	R8213B	47	SO9119	32	SO9719SF	31	SS20890S	10
R4158SF	9	R5006B	46	SO5320SF	28	R8214B	47	SO9119S	32	SO9720SF	31	SS20891S	10
R4159F	9	R5007B	46	SO5321SF	28	R8215B	47	SO9124F	32	SO9721SF	31	SS20923S	6
R4159GF	9	R5010B	46	SO5322SF	28	R8216B	48	SO9124SF	32	SO9722SF	31	SS20924S	6
R4159GSF	9	R5011B	46	FP5332F	36	R8220B	48	SO9125F	32	XSO9723SN	31	SS20925S	6
R4159SF	9	R5012B	46	FP5333F	36	R8221B	48	SO9125SF	32	XSO9724SN	31	SS20926S	6
R4160F	9	R5013B	46	FP5336F	37	R8222B	48	XSO9126SN	32	XSO9725SN	31	SS20927SF	6
R4160GF	9	R5018B	41	FP5337F	37	R8223B	48	XSO9127SN	32	XSO9726SN	31	SS20928SF	6
R4160GSF	9	R5019B	41	SO5360SF	34	R8224B	48	SO9176	33	XSO9727SN	31	SS20929SF	6
R4160SF	9	R5023B	41	SO5363SF	34	R8237B	49	SO9180	33	SO9750S	42	SS20930SF	6
R4161F	9	R5028B	46	NP5670	19	R8238B	49	SO9214	42	SO9751S	42	XSS20937SN	6
R4161GF	9	R5030B	46	NP5671	19	R8239B	49	SO9300	43	SO9752S	42	XSS20938SN	6
R4161GSF	9	SO5075	26	K5910S	35	R8240B	49	SO9301F	33	SO9753S	42	XSS20939SN	6
R4161SF	9	SO5076	26	K5911S	35	R8241B	49	XSO9302N	33	SO9754S	42	XSS20940SN	6
R4162F	9	SO5077	26	K5912	35	R8242B	49	SO9308	33	XSO9770S	27	SS20947SF	10
R4162SF	9	SO5078	26	K5913S	35	R8243B	49	SO9309F	33	XSO9771S	27	SS20948SF	10
R4163F	9	R5100B	46	K5914S	35	R8256B	49	XSO9310N	33	XSO9772S	27	SS20949SF	10
R4163SF	9	R5100BF	46	K5915	35	R8257B	49	SO9312	33	XSO9773S	27	XSS20954SN	10
R4164F	9	R5100BFN	46	XK5919SN	35	R8258B	49	SO9313F	33	XSO9774	27	XSS20955SN	10
R4164SF	9	R5100BN	46	XK5920SN	35	R8259B	49	XSO9314N	33	XSO9775	27	XSS20956SN	10
S4165F	10	R5101B	46	XK5921N	35	R8260B	49	SO9350S	32	XSO9776	27	XH21608N	17
S4165SF	10	R5101BF	46	SO6075	26	R8261B	49	SO9351S	32	XSO9777	27	XH21609N	17
S4166F	10	R5101BFN	46	SO6076	26	R8262B	49	SO9352S	32	XSO9778	27	XH21610N	17
S4166SF	10	R5101BN	46	SO6077	26	R8302BFN	48	SO9353S	32	XSO9779S	28	H22452	17
S4167F	10	R5102B	46	SO6078	26	R8303BFN	48	SO9360S	32	XSO9780S	28	H22452B	17
S4167SF	10	R5102BF	46	SO6080	26	R8304BFN	48	SO9361S	32	XSO9781S	28	SF22453	16
R4168F	14	R5102BFN	46	SO6081	26	R8305BFN	48	SO9362S	32	XSO9782S	28	SF22453B	16
R4169F	14	R5102BN	46	ST7000	51	R8306BFN	48	SO9363S	32	XSO9783	28	H22454	17
R4170F	14	R5103B	46	ST7000B	51	R8307BFN	48	SO9380SF	32	XSO9784	28	H22454B	17
R4171F	14	R5103BF	46	ST7010F	51	R8308BFN	48	SO9381SF	32	XSO9785	28	H22455	17
R4172F	14	R5103BFN	46	XST7019N	51	R8309BFN	48	SO9382SF	32	XSO9786	28	H22455B	17
R4173F	14	R5103BN	46	R7994B	47	R8310BFN	48	SO9383SF	32	XSO9787	28	SF22456	16
S4174F	14	R5104B	46	R7995B	47	R8311BFN	47	XSO9390SN	32	XSO9788	28	SF22456B	16
S4175F	14	R5104BF	46	R7995BF	47	R8312BFN	47	XSO9391SN	32	WP13000S	53	SS22466	6
S4176F	14	R5104BFN	46	R7995BFN	47	R8313BFN	47	SO9405	34	WP13000SB	53	SS22467	6
R4178F	14	R5104BN	46	R7995BN	47	R8314BFN	47	SO9410	34	WP13004SF	53	SS22468	6
R4179F	14	XR5105N	14	R7998B	47	R8315BFN	47	SO9411	34	XWP13006SN	53	SS22469	6
R4182F	14	XR5106N	14	R7998BF	47	R8316BFN	48	SO9413	34	WP13010S	53	SS22470	11
R4183F	14	XR5107N	14, 54	R7998BFN	47	R8320BFN	48	SO9415	34	WP13010SB	53	SS22471	11
R4188F	14	XR5108N	14, 54	R7998BN	47	R8321BFN	48	SO9416S	30	WP13014SF	53	SS22472	11
R4189F	14	XR5109N	14, 54	R7999B	47	R8322BFN	48	SO9417S	30	XWP13016SN	53	SS22473	11
R4193	5	XR5110N	14, 54	R8000B	47	R8323BFN	48	SO9418S	30	WP13020	53	SS22474	15
R4193B	5	XR5111N	14, 54	R8001B	47	R8324BFN	48	SO9419S	30	WP13020B	53	SS22475	15
R4193S	5	XR5112N	14, 54	R8002B	47	R8327BFN	49	SO9424S	30	WP13022F	53	SS22476	15
R4193SB	5	XR5113N	14	R8003B	47	R8338BFN	49	SO9425S	30	XWP13023N	53	SS22477	15

Part Number	Pane Number	Part Number	Pane Number	Part Number	Pane Number
SS22496F	6	B32530BF	50	S073161S	33
SS22497F	6	BS34782	16	S073163SF	33
SS22498F	6	BS34782B	16	XS073165SN	33
SS22499F	6	BS34783	16	S073170S	33
XSS22506N	6	BS34783B	16	S073172S	33
XSS22507N	6	BS34792	16	S073174SF	33
XSS22508SN	6	BS34792B	16	XS073176SN	33
XSS22509SN	6	BS34793	16	S073181	33
SS22530F	11	BS34793B	16	S073183	33
SS22531F	11	BS41162	7	S073185F	33
SS22532F	11	BS41162B	7	XS073187N	33
SS22533F	11	BS41162S	7	R141210B	13
XSS22540N	11	BS41162SB	7	R141214B	13
XSS22541N	11	BS41163	7	311210F	21
XSS22542N	11	BS41163B	7	311614F	21
XSS22543N	11	BS41163S	7	312216F	21
SS22564F	15	BS41163SB	7	411210F	21
SS22565F	15	BS41172	7	411614F	21
SS22566F	15	BS41172B	7	412216F	21
SS22567F	15	BS41172S	7	R441210B	13
XSS22574N	15	BS41172SB	7		
XSS22575N	15	BS41182	7		
XSS22576N	15	BS41182B	7		
XSS22577N	15	BS41182S	7		
XBS24042SN	7	BS41182SB	7		
XBS24043SN	7	BS41183	7		
XBS25873N	16	BS41183B	7		
XBS25892N	16	BS41183SB	7		
XBS25893N	16	41210	21		
XR26336N	5. 54	41210B	21		
XR26337N	5. 54	BS41270	11		
XR26338N	5. 54	BS41270B	11		
XR26339N	5. 54	BS41270S	11		
XR26340N	5. 54	BS41270SB	11		
BS29952	16	BS41272	11		
BS29952B	16	BS41272B	11		
BS29953	16	BS41272S	11		
BS29953B	16	BS41272SB	11		
31210	21	BS41273	11		
31210B	21	BS41273B	11		
31614	21	BS41273S	11		
31614B	21	BS41273SB	11		
32103BF	50	BS41278	11		
32104BF	50	BS41278B	11		
R32112BF	50	BS41278S	11		
R32113BF	50	BS41278SB	11		
R32114BF	50	BS41282	11		
R32115BF	50	BS441282B	11		
R32116BF	50	BS41282S	11		
S32122BF	50	BS41282SB	11		
S32123BF	50	BS41292	11		
S32124BF	50	BS41292B	11		
B32130BF	50	BS41292S	11		
SS32144BF	50	BS41292SB	11		
SO32187F	50	41614	21		
SO32197F	50	41614B	21		
32216	21	42216	21		
32216B	21	42216B	21		
32303BF	50	R61002G	9		
32304BF	50	R61002GB	9		
R32312BF	50	R61002GS	9		
R32313BF	50	R61002GSB	9		
R32314BF	50	R61005GF	9		
R32315BF	50	R61005GSF	9		
R32316BF	50	XR61006GSN	9		
R32317BF	50	R64641B	46		
S32322BF	50	R64642B	46		
S32323BF	50	R64643B	46		
S32324BF	50	R64644B	46		
B32330BF	50	R64645B	46		
SS32344BF	50	R64651B	46		
MP32369F	50	R64654B	46		
FP32379F	50	R64655B	46		
SO32387SF	50	R64661B	41		
SO32397SF	50	R64662B	41		
32403BF	50	R64663B	41		
32404BF	50	S070572S	31		
R32412BF	50	S070573S	31		
R32413BF	50	S070576S	31		
R32414BF	50	S070577S	31		
R32415BF	50	S070904S	29		
R32416BF	50	S070905S	29		
R32417BF	50	S070908SF	29		
R32419BF	50	S070909SF	29		
S32423BF	50	XS070910SN	29		
S32424BF	50	XS070911SN	29		
S32425BF	50	S070912S	31		
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SO32487F	50	S070917SF	31		
SO32497F	50	XSO70918SN	31		
R32514BF	50	XSO70919SN	31		
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R32517BF	50	S070932S	29		
R32519BF	50	S073159S	33		